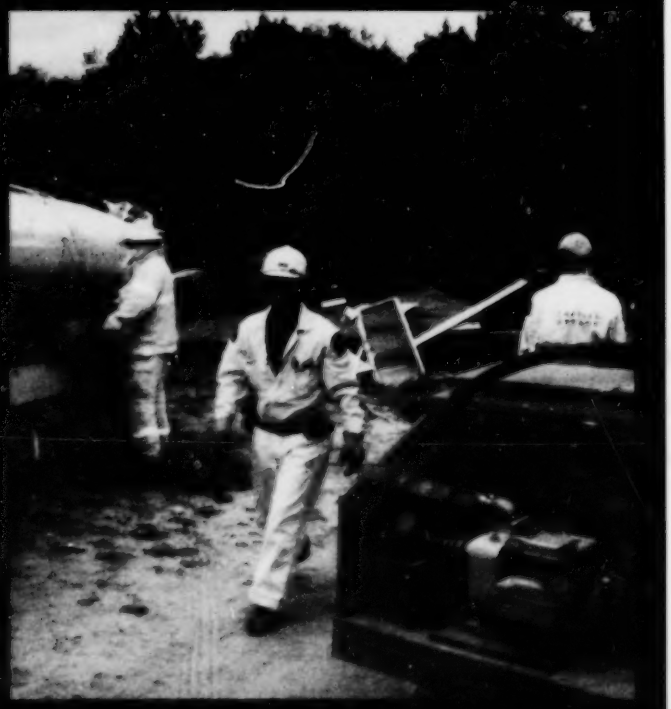
SASKATCHEWAN'S FIRE/RESCUE SERVICE SECTOR:

Identification of Human Resource Development Requirements into the 21st Century



Historical Review

A Job Start-Future Skills Study

SASKATCHEWAN'S FIRE/RESCUE SERVICE SECTOR:

Identification of Human Resource Development Requirements into the 21st Century

A research project funded by Job Start-Future Skills

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for

Saskatchewan Post-Secondary Education and Skills Training

in partnership with

Office of the Fire Commissioner, Saskatchewan Municipal Affairs, Culture and Housing, and

Members of Saskatchewan's Fire/Rescue Sector

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Informative Abstract

This study of Saskatchewan's Fire/Rescue Sector was carried out in an attempt to identify the sector's current and future human resource development needs, and to provide a framework to guide the future development of the sector. The study was funded by Job Start-Future Skills, a federal-provincial program concerned with the development of sectors of the province's economy and their human resources.

The study's methodology consisted of a review of the historical development of the sector and the function of regulatory agencies related to fire/rescue education, training, certification and accreditation. Information and statistics were gathered from representatives of regulatory agencies and federal and provincial government departments concerned. Visits were made to industrial sites in Saskatchewan to interview supervisors involved in fire/rescue training and supervision.

The study team held informational meetings with Saskatchewan's Office of the Fire Commissioner, an advisory committee to the Minister responsible for the Office of Fire Commissioner, and established a Steering Committee to guide the study. Under the direction of the Steering Committee, three sub-sector working groups were formed for the purpose of identifying the education and training needs of each group and the sector. These groups included representatives of municipal firefighters, industrial firefighters, and Saskatchewan's First Nations and Saskatchewan Environment and Resource Management firefighters.

A review was undertaken of the mandates of associations concerned with the professional development of fire fighters and their collective bargaining needs within the province's fire/rescue sector, and interviews were held with leaders of associations representing the sector's groups of firefighters. Through site visits, Internet searches, or meetings with individual representatives, data were collected from a variety of in-province, out-of-province and United States-based providers of educational and training programs to the fire/rescue sector.

The following strategies are offered for moving this report's findings and recommendations forward, and to guide the development and implementation of the sector's expressed aim of creating a Saskatchewan education and training agency to meet its members' needs:

1. The study's steering committee be mandated the task of establishing a Fire/Rescue Sector Council to lead the future development of this sector. The Council's executive membership must be representative and reflective of the sector and its stakeholders. It is further recommended that the Committee identify funding sources to assist in its establishment, initial membership drive, and in the creation of an advisory body to the proposed Saskatchewan-based training agency.

2. A Saskatchewan-based education and training partnership agency be established to serve the needs of the province's fire/rescue sector. It is further recommended that the Saskatchewan Institute of Applied Science and Technology be designated as the agency's coordinating body for the purposes of identifying potential in- and out-of-province delivery and regulatory partners, and for convening initial meetings to establish partnership agreements. In addition, SIAST should be mandated to coordinate the long-term delivery of programs and services, maintain records of training activities across the sector, and work with accrediting and certifying agencies to ensure that programs meet sector requirements.

3. Under the auspices of the Fire/Rescue Sector Council, an industry advisory body be established to guide the development of the partnership agency and the framework of programs and services for the fire/rescue sector.

4. As the fire/rescue sector provides a range of services including fire suppression, vehicle extrication, hazardous materials handling, and more, SIAST be provided with an initial operating grant of $250,000.00 to provide a period of stability and an opportunity for SIAST to establish a sustainable agency in Saskatchewan. This operating grant be provided to SIAST from the levy on taxes collected under the various provincial Acts identified in this study as being tied to the public safety services provided by the fire/rescue sector. As the agency should be at or near self-sufficiency at the end of 5 years, any continuance of this funding beyond that period would be open to negotiation between the province and the agency's board of directors.

5. The study steering committee convene a meeting of the Federation of Saskatchewan Indian Nations, Indian and Northern Affairs Canada, Saskatchewan Intergovernmental Affairs, the

provincial Office of Fire Commissioner, and other agencies concerned to discuss the establishment of an FSIN central office for the purpose of providing leadership in the development of fire services and programs in First Nations communities. It is further recommended that the office structure be based on the provincial Office of the Fire Commissioner and have at a Director of Fire Services and least one Fire Prevention Officer (FPO) in each tribal council, including the independent councils. It is further recommended that INAC provide the FSIN with an annual operating grant to establish and maintain the central office, and that new additional INAC funding be provided for FPOs and tribal council activities related to the provision of First Nations fire services. The amount of this annual grant is to be negotiated between INAC and the FSIN.

6. Using NFPA standards as a basis for development, a working group be established to develop a professional development program for line officers in Saskatchewan's municipal fire departments. This program will lead to a professional designation to be determined by the working group.

7. A working group be established to develop a professional development program for supervisors in Saskatchewan's fire/rescue industrial departments. This program will lead to a professional designation to be determined by the working group.

8. A working group of industrial firefighters and representatives of regulatory agencies be established to negotiate, promote and formalize the acceptance and implementation of the proposed framework of training modules leading to certification of industrial firefighters in Saskatchewan.

9. One of the initial priorities to be assigned to the training agency will be to review the state of the province's volunteer fire services, especially the provision of community and regional access to education and training and the training framework required for certification of volunteer firefighters in Saskatchewan.

10. Saskatchewan Environment and Resource Management be invited to work with the OFC and the new training agency to develop curriculum for dealing with urban/wildlands interface, and to develop a framework for establishing and implementing interface agreements throughout Saskatchewan.

11. When the federal transfer of airports to local operators in Saskatchewan has been completed and industry jurisdictional issues around airport fire services have been finalized, airport firefighters should be included in the future development framework of Saskatchewan's fire/rescue sector.

12. As a priority, it is recommended that the to-be-formed sector council meet with the OFC to discuss the just-completed review of the OFC with the aim of linking the recommendations to a strategic framework relative to human resource development issues within the sector.

Acknowledgements

The researchers are indebted to the following individuals and organizations:

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- Members of the study's steering committee (Appendix A).
- Members of the three sub-sector working groups (Appendix B).
- The many fire chiefs and departmental officers, faculty and administrative members of fire colleges and universities, Federation of Saskatchewan Indian Nations, Saskatchewan Environment and Resource Management, Saskatchewan Finance, Indian and Northern Affairs Canada, Human Resources Development Canada, and industrial managers and supervisors who arranged site visits and/or provided information for the study. From among these participants, we especially acknowledge the ongoing assistance of Chief Hugh Gordon and Training Director Allan Priddell of the Regina Fire Department.
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- Last, but not, least, we extend our appreciation to Ms. Glady's Hill and other Job Start-Future Skills members of Saskatchewan Post-Secondary Education and Skills Training for the funding and opportunity to conduct this study. Gladys attended our meetings, monitored progress, and gave us the time necessary to complete a study of this complex and important sector.

Index of Acronyms

AFTS	Alberta Fire Training School
CAFC	Canadian Association of Fire Chiefs
CAFI	Canadian Association of Fire Investigators
FPO	Fire Prevention Officer
FSTS	Fire Services Training School
IFSAC	the International Fire Service Accreditation Congress
IFSTA	International Fire Service Training Association
LA	Local Assistant
MESC	Manitoba Emergency Services College or
MFC	Manitoba Fire College
NFPA	National Fire Protection Association
NPQS	National Board on Fire Service Professional Qualifications
OFC	Office of the Fire Commissioner
OSU	Oklahoma State University
SAFC	Saskatchewan Association of Fire Chiefs
SERM	Saskatchewan Environment and Resource Management
SPFFA	Saskatchewan Professional Firefighters Association
SVFFA	Saskatchewan Volunteer Firefighters Association
AFTS	Alberta Fire Training School

Fire/Rescue Service Sector Study

Given current initiatives to identify and plan for human resource development requirements within sectors of the provincial economy, this study examined Saskatchewan's fire/rescue service sector with the view of identifying the human resource development requirements for this sector, and to seek recommendations on the future delivery of education and training programs for and within the sector. A research proposal was submitted by the University of Regina's University Extension and the Faculty of Education's Vocational/Technical Education and Human Resource Development programs to Job Start/Future Skills, a federal-provincial cost-shared program that supports research into emerging labour market trends. The proposal was accepted.

The key aims of the study were to:

- identify the immediate, short-term and long-term human resource development needs within the sector
- identify the education and training needs within each sub-sector
- gain input and recommendations on what strategy should be employed for the future development and delivery of education and training for the full sector
- identify three projects that would help the sector organize itself or move forward with an education and training agenda. Note: The study team was provided funding to assist with or to facilitate the development of these initiatives.

To accomplish these aims, the study team set out to establish a project steering committee whose membership would reflect the sectors stakeholder profile. The team also wanted to approach Saskatchewan's Fire/Rescue Service Sector in a fashion that enabled them to access and gather data from key agencies within the sector.

The study sought to identify strategies and develop an education and training delivery framework that would serve to meet both the needs of the fire/rescue sector and the goals of the Saskatchewan Training Strategy; developing a skilled workforce relevant to sectors of the province's labour market, enhance access and support opportunities for learners, and create a coherent, effective and sustainable delivery system. The study also sought to determine ways to achieve some of the Strategy's objectives such as the following:

- increase access and make skills training more timely and relevant to industry and community employment needs
- promote equity, fairness, and diversity throughout the training and employment system
- develop an integrated regional delivery system for training and labour market services
- expand partnerships with First Nations and Métis institutions and services to better identify and meet Aboriginal training and employment needs
- maximizing recognition and transfer of learning to increase mobility and access for learners
- strengthen SIAST's provincial role in support of the Saskatchewan Training Strategy

The Fire/Rescue Service Sector

The Fire/Rescue Service Sector may be seen as a network of agencies involved in the provision of public safety, fire protection and rescue services in the Province of Saskatchewan. The relationship among these agencies is rooted in such areas as linkages to the Office of the Fire Commissioner, the compatibility of mandates, the similarity of occupations and occupational requirements, and the range of tasks and responsibilities associated with the sector. The sector is comprised of agencies and communities of practice within which there are similar interests and requirements in education and training programs and services, either as pre-requisites for entry to work in the sector, or as a condition of continuing employment and participation in the sector. The sector also provides protection and suppression services in many Saskatchewan workplaces in the form of fire/rescue crews. In addition to meeting its regulatory and industry mandates, the sector provides a range of public education and training programs.

Study Methodology and Protocol

To ensure that the senior regulatory body for fire services in Saskatchewan was informed about this study, a meeting was held with the provincial Fire Commissioner to outline the project and to establish a link with the Office of Fire Commissioner (OFC). In addition to this meeting, the Commissioner arranged for the study team to meet with an advisory committee to the OFC. The committee was comprised of key

stakeholders in the fire/rescue sector such as the fire chiefs and line officers, firefighters unions, Saskatchewan Municipal Government, and others. The committee members were provided an overview of the study and individual members were asked to suggest a protocol for getting a representative from each advisory body to sit on a study steering committee.

The next study team activity consisted of field visits to a number of industrial sites throughout the province to gain a sense of the makeup of fire/rescue services in heavy industry. The sites included mines, pulp and paper mills, oil processing plants, and Saskatchewan Environment and Resource Management's operation in Prince Albert. Interviews were held with supervisors responsible for each site's fire/rescue services and tours of some sites were taken as an orientation to industrial fire/rescue operations, equipment, and services. These visits provided opportunity to make observations and record field notes from interviews and informal discussions with fire/rescue supervisors and other firefighters who sat in on some discussions.

Through contacts made with members of the OFC's advisory committee and industrial supervisors, and through telephone calls and letters to various other key stakeholders, a steering committee was formed to represent the sector's communities of practice (Appendix A). Members represented fire services in heavy industry, suppliers of fire protection equipment, First Nations, Métis, education and training institutions, safety agencies, professional firefighters, volunteer firefighters, fire chiefs, unions, and the OFC. Representatives of Saskatchewan Post-Secondary Education and Skills Training and the OFC were ex-officio to all meetings.

At the first meeting of the steering committee it was agreed that the most effective way to approach the sector was to delineate it into three key sub-sectors: 1. Professional, composite, and volunteer fire services; 2. industrial fire services; and, 3. Saskatchewan Environment and Resource Management and First Nations fire services. It was suggested that a series of working group sessions be organized with representatives being invited from stakeholders within each sub-sector. The working groups were formed through input from members of the steering committee who offered advice on the participant profile that might best reflect a sub-sector's communities of practice (Appendix B). Members of the steering committee had open invitations to attend all sessions. Each of the groups met on two occasions; the first was a full-day session, and the second was a half-day session. All sessions were held at the University of Regina's Extension offices.

The working group sessions were held to identify the education and training needs of each sub-sector, and to gain input and recommendations on what strategy should be employed for the future development and delivery of education and training for the full sector. Each group format was one of an orientation to the study followed by a large-group discussion of issues. After this discussion small groups were formed by areas of interest and assigned a series of questions to guide their discussion. At the end of the small-group sessions the members met back in the large group format to report back on issues and recommendations.

In the first session the groups set out to create a profile of the pre-requisites for entry to their fire services, develop a list of education and training requirements for the sub-sector, and identify an activity that would help their particular sector group move forward with a training agenda. In the second session, the groups focussed in on the future of the fire/rescue sector and what type of framework should guide the future development of its human resources in Saskatchewan. It is noteworthy that the participants' organizations covered all travel expenses as industry's contribution to the project.

In addition to working groups, interviews were conducted with individuals who held leadership or regulatory roles within the fire/rescue sector. Interviewees included the following: industry supervisors, trainers, members of the OFC and other government regulatory bodies, sales agents who provided product-based training to the sector, First Nations leaders and trainers, leaders of associations representing both collective bargaining and professional interests of firefighters, and a number of in-province private sector provider agencies and two out-of-province institutions that deliver fire/rescue training.

Documentation was collected from a number of sources including regulatory agencies, public and private fire colleges, universities, Human Resources Development Canada, Multiculturalism and Citizenship Canada, fire-related research reports, and corporate and interest group studies related to the education and training for Saskatchewan's fire/rescue sector. This aspect of the research also included Internet searches on colleges and universities offering fire-related programs.

The research was carried out over the period of April 1, 1998 to March 31, 1999. Following are the results of the research activities. Part I, entitled "Historical Overview and Background Information", provides an historical overview of the fire/rescue sector and the agencies and communities of practice that currently comprise the sector. Also included is a sample listing of education and training activities offered by provider agencies within the sector. This report presents the outcomes of the steering committee's work, the working group sessions, interviews and documentation review. The format for the report follows a sub-sector or working-group format, and includes recommendations relative to each sub-sector. The term firefighter is used generically to represent all classes and ranks of firefighters. The report concludes with a presentation of overall findings and recommendations.

Historical Review of the Fire/Rescue Sector

The British North America Act 1867 established the rights and responsibilities of the federal, provincial and municipal levels of government in the area of fire suppression. Seven years after joining confederation in 1905, the Saskatchewan legislature passed the Fires Prevention Act (1912) to outline its jurisdiction and responsibility re: provincial and municipal matters. Apart from legislative records, no history of Saskatchewan's fire safety sector has ever been written; neither has an official history been written of the Office of the Fire Commissioner (OFC). What follows are significant developments in the history of the OFC and the growth of the fire/rescue sector in Saskatchewan.

The Fires Prevention Act (1912) was the first Act of the Provincial Legislature when the province recognized the need for formalization and regulation of fire prevention and suppression inspection services in the province. This Act established the office and position of Fire Commissioner and the right for employees within the Office of Fire Commissioner (OFC) to investigate fires. The Act outlined the rights and responsibilities for fire departments, mayors, or any other municipal overseers to conduct inspections and to order the removal of hazards, and it allowed the Lieutenant Governor in Council to establish fire districts throughout the province. The Fires Prevention Act was amended in 1915 to outline a process through which insurance companies would report fire losses in which they had an interest.

In 1916, a comprehensive Fire Prevention Act was passed to cover inspection, the issuing of orders to remedy hazardous conditions, mechanisms for establishing local assistance, and the right for the Fire Commissioner to establish regulations and outline the requirements for Local Assistants (LA) to record and report fire losses. The revised Act provided for the following: Fees to be paid to LAs for reporting fire losses and a fire requirement for reporting; outlined the right to appeal for aggrieved persons who had been issued an order re: the removal of hazards; set out taxes for fire insurance companies to maintain the OFC; established the OFC as a commission that was at-arms-length from government; established penalties and a process for non-compliance; and, prescribed an annual report that the Fire Commissioner had to submit to the provincial ministry responsible. Other revisions to the Act were carried out in 1920, 1930, and 1940 when regulations were established covering the storage and sale of gasoline. A major reform was carried out to the Fires Prevention Act in 1951 when the OFC was assigned the duties of Civil Defence as an outcome of WWII: Civil Defence was to later become the Emergency Measures Organization. There was no mention of training in any early legislation, although local fire departments and the OFC were involved in design and delivery of courses.

The Fire Prevention Act was amended in 1953 to outline a process for dealing with failure to pay the insurance tax to the OFC and to provide a process for fining Local Assistants for non-performance of duties. Various minor revisions were made to the Act over the years; for example, a revision was passed in 1957 to cover oil burner installation and maintenance. In 1965, a rewriting of the Act was carried out, but there was still no reference to training included in the Legislation. It was not until 1978 that a reference to education and training was included in the Act with wording that the OFC was to provide for training courses in fire fighting and fire prevention. Later revisions of the Act in 1980 and 1992 retained this same wording. The 1980 revision had a significant section stating that every insurance company in the province was to pay 1% of its premium to the Minister of Finance by March 31 of each year., and that the monies collected was to be dedicated to paying the expenses of administering the Act and Regulations.

The Fire Prevention Act (1992) clarified the municipalities' role in establishing bylaws regarding fire related matters, charging0 fees for carrying out repairs, and recovering costs without the OFC being involved. The shift in policy placed the OFC in an advisory role to municipalities and gave municipalities a stronger mandate to appoint fire chiefs and provide training for local fire departments. In this Act, the 1% tax on insurance company premiums was replaced with a new Tax on Premiums and Assessments clause in Section 29 where the wording for subsection 29(1) was changed to say: Every company, whether stock or mutual, licensed or not, transacting the business of fire insurance within the meaning of The Saskatchewan Insurance Act shall pay to the Minister of Finance a fee in the amount prescribed in the

regulations. Subsection 29(5) noted that Any monies paid pursuant to subsection (1) are to be deposited in the Consolidated Fund.

Over time a number of revisions were carried out to the insurance premiums and tax revenue related to fire and other forms of insurance linked to the fire/rescue sector. The current Insurance Premiums Tax Act, for example, assesses a 2% levy on life, accident and sickness insurance premiums, and 3% on all other forms of insurance; including fire insurance and excluding marine insurance. Coupled with the 1% being collected under the Fire Prevention Act, an effective rate of 4% is directed at fire-related insurance premiums. In addition to these premiums, a levy of 1% is collected under the Motor Vehicle Insurance Premiums Tax Act.

Revenue derived from the Fire Prevention Act levy of 1% on fire insurance premiums over the period 1974/75 to 1997/98 (Table 1) shows that revenue rose from $210,893.62 in the initial fiscal year 1974/75, to $2,386,718.52 in 1997/1998. Saskatchewan Finance projects the revenue for 1998/1999 to be in the range of $2,400,000.00.

Table 1

Revenue from Fire Insurance Premiums Tax:
Fire Prevention Act

YEAR	REVENUE	% CHANGE
1974/75	$ 210,893.62	
1975/76	$ 230,604.36	9.4
1976/77	$ 480,453.31	108.4
1977/78	$ 864,322.08	79.9
1978/79	$ 845,396.67	-2.2
1979/80	$ 972,875.48	15.1
1980/81	$1,117,665.33	14.9
1981/82	$1,320,498.51	18.2
1982/83	$1,456,393.39	10.3
1983/84	$1,637,617.85	12.5
1984/85	$1,639,788.60	0.1
1985/86	$1,762,628.60	7.5
1986/87	$1,868,402.47	6.0
1987/88	$1,890,672.79	1.2
1988/89	$1,889,076.92	-0.1
1989/90	$1,800,738.36	-4.7
1990/91	$1,869,587.08	3.8
1991/92	$1,837,759.25	-1.7
1992/93	$1,893,342.66	3.0
1993/94	$2,046,262.26	8.1
1994/95	$2,039,924.89	-0.3
1995/96	$2,187,318.68	7.2
1996/97	$2,327,078.14	6.4
1997/98	$2,386,718.52	2.6
(Budget) 1998/99	$2,400,000.00	0.5

Records of revenue generated from The Insurance Premiums Act (Table 2) show that a total of $3,313,217.16 was collected in 1974/75, and $31,993,240.46 in 1997/98.

Table 2

Revenue from Insurance Premiums Tax Act

YEAR	REVENUE	% CHANGE
1974/75	$ 3,313,217.16	
1975/76	$ 4,054,500.71	22.4
1976/77	$ 5,166,461.65	27.4
1977/78	$ 5,166,461.65	18.6
1978/79	$ 6,127,210.06	5.3
1979/80	$ 6,456,687.35	9.5
1980/81	$ 7,066,353.60	15.7
1981/82	$ 8,175,167.73	23.9
1982/83	$10,126,341.90	7.6
1983/84	$10,893,808.50	51.3
1984/85	$16,476,464.31	6.0
1985/86	$17,471.982.32	-.09
1986/87	$17,318,385.05	12.8
1987/88	$19,542,761.75	2.8
1988/89	$20,088,572.60	3.3
1989/90	$20,752,312.53	5.5
1990/91	$21,885,396.13	1.6
1991/92	$22,238,569.44	2.7
1992/93	$23,663,881.74	3.6
1993/94	$26,223,273.64	10.8
1994/95	$26,223,273.64	4.8
1995/96	$29,206,633.77	6.3
1996/97	$31,009,695.22	6.2
1997/98	$31,993,240.46	3.2
(Budget) 1998/99	$34,000,000.00	6.3

Saskatchewan Finance's revenue projection for 1998/99 under this Act is $34,000,000.00.

Records of revenue generated from The Motor Vehicle Insurance Premiums Tax Act (Table 3) show that $600,818.99 was collected in 1974/75 and a total of $4,397,004.34 was collected in 1997/98.

Table 3

Revenue from Motor Vehicle Insurance Premiums Tax Act

YEAR	REVENUE	% CHANGE
1974/75	$ 600,818.99	
1975/76	$ 725,488.63	20.8
1976/77	$ 965,025.60	33.0
1977/78	$1,122,978.27	16.4
1978/79	$1,087,694.97	-3.2
1979/80	$1,138,879.04	4.7
1980/81	$1,464,229.87	28.6
1981/82	$1,964,553.54	34.2
1982/83	$2,060,900.03	4.9
1983/84	$2,260,840.19	9.7
1984/85	$2,421,461.96	7.1
1985/86	$2,199,679.84	-9.2
1986/87	$2,490,145.07	13.2
1987/88	$2,619,200.70	5.2
1988/89	$2,878,332.24	9.9
1989/90	$3,005,735.10	4.4
1990/91	$3,100,177.78	3.1
1991/92	$3,184,481.41	2.7
1992/93	$3,375,226.47	6.0
1993/94	$3,659,213.77	8.4
1994/95	$3,796,544.52	3.8
1995/96	$4,027,998.99	6.1
1996/97	$3,828,017.50	-5.0
1997/98	$4,397,004.34	14.8
(Budget) 1998/99	$4,170,000.00	-5.1

Saskatchewan Finance's 1998/99 revenue projection under this Act is $4,170,000.00. The collective revenue generated by these three Acts in 1997/98 amounted to $38,776.962.00.

The fire/rescue sector has an interest in these Acts, particularly the Fire Prevention Act, as the insurance monies collected under this Act--$2,386,718.52 in 1997-1998---are intended to help carry out its requirements. Fire/rescue sector members are particularly interested in Section 38 of the Fire Prevention Act as it outlines regulations respecting the education, training and certification standards of persons involved in the installation, use and maintenance of fire-related equipment. Subsection 38(f) specifically allows the Lieutenant Governor in Council to make regulations governing the standards for fire protection training and the education and certification of firefighters, fire inspectors, fire investigators, and fire officers. The early wisdom behind this legislation allowed Saskatchewan and the OFC to develop a lead role in education and training for the fire sector, just as it had in other areas of adult vocational and technical education. The community-based delivery approach has been a hallmark of Saskatchewan's system for providing access to training and maximizing the use of existing resources at the community level. While the OFC had been involved in training from its earliest inception, staff of the OFC were legislated to deliver education and training programs to fire departments across the province under the 1978 Act.

While this historical review revealed that the OFC was mandated roles other than the provision of education and training of firefighters, the focus of this study was on this issue. The remainder of this report, therefore, deals only with issues associated with the development and delivery of education and training programs and services within the fire/rescue sector, including the OFC.

Early Education and Training Initiatives

Local fire departments in Saskatchewan were conducting community-based training in the pre-war era, and, although it have no formal mandate to conduct training programs, the OFC had become involved in the delivery of courses and published its first formal training manual in 1947. Fire Prevention Officers (FPOs) were sent out from the OFC at the request of local fire authorities to deliver on-site training, and anywhere from two to six FPOs were employed in this fashion at any one time. This ad hoc approach continued up to the period in which the OFC was given its legislative mandate to deliver training. When formally introduced, training for all firefighters delivered by the OFC was through six two-day courses, and the elementary or community-based volunteer firefighter training programs offered in the pre- and post-1947 periods continued for some time. These courses were to be augmented by the new program that established a level of competency considered adequate for members of any fire department, paid or volunteer. During the implementation period for the new program, communities could choose either the old or new program (Office of the Fire Commissioner, 1988, pp. 3 - 4).

By 1949, 23 courses per year were being delivered throughout Saskatchewan, and the OFC had purchased a truck, pump, tank and other equipment to facilitate training. In 1952, an instructor and a senior instructor were hired. And by 1983, this complement of training staff was expanded by two more members. In 1963, the truck was replaced by a new fire-fighting unit especially designed for training. The truck was replaced in 1967, and again in 1980. By 1978, the OFC had a legislative mandate for the education, training and certification of members of the fire sector. By the mid-eighties, the OFC had a complement of 26 officers with 14 being assigned to training functions in the field.

As previously noted, a Select Committee of the Saskatchewan Legislature was created in 1983-84 and mandated to outline a direction for firefighter training in the province. The Committee recommended that a training facility be established in Saskatchewan, and that training based on National Fire Protection Association (NFPA) standards be delivered. In 1985, the OFC embarked on a major training initiative with the hiring of a Principal of Training and the delivery of the first of a series of modules leading to a certificate for firefighters. During 1987-88, a 17-module Level I firefighter program based on NFPA Standard 1001 Professional Qualifications for Firefighters levels 1, 2, and 3 was field tested in various locations. In addition, a module from a Fire Service Instructor Training program, which also met NFPA standards, was field-tested by the OFC (Office of the Fire Commissioner, 1988, p. 4). Saskatchewan had gained its first certification for firefighters under the 1987 NFPA standard.

Along with its certificate programs, the Commissioner's office had developed a comprehensive Train-the-Trainer program (e.g., a fire service instructor program) and was involved in extensive delivery of training throughout the

province. Like elsewhere in Canada during the mid-80s, the onset of budget reductions saw the beginning of a series of cutbacks in personnel, and the restraints for the 1989-90 fiscal year saw a reduction in the OFC's budget for education and training. At that point, the OFC began to withdraw from the direct delivery of programs and services.

The Select Committee's recommendation for the establishment of a Principal of Training was acted upon in 1987-1988 when Vern Bartlett was appointed to the position. His appointment was seen as the first step towards the establishment of a fire college in Saskatchewan. Murray Fisher, the then Fire Commissioner, retired shortly after Bartlett's appointment, so Bartlett was promoted to the position of Fire Commissioner. Mr. Rick McCullough replaced Bartlett as Principal of Training in 1988; however, Bartlett vacated his position in 1991 and the responsibilities of Principal and Fire Commissioner were merged. McCullough was appointed Fire Commissioner, the Principal of Training no longer existed, and the idea of a fire college was never. Given that the Select Committee had recommended that firefighter training be standardized and provided in accordance with NFPA standards, on September 19, 1989, the OFC joined Alberta in becoming the second Canadian agency accredited to certify firefighters in accordance with these professional qualification standards.

In 1989-90 the OFC's training staff expanded by two additional Training Officer positions which were based in Saskatoon to facilitate the delivery of training throughout the province. By 1990, however, the OFC was involved only in piloting newly-developed courses with an emphasis on providing support and the certification of trainers, rather than the direct delivery of training. By 1993, the OFC had merged the roles of training officers and inspector-investigators and local fire authorities were encouraged to arrange for their own training. The OFC 's focus shifted to one of serving in advisory, inspection, investigation and consulting roles to fire departments, and it only advised sector members on what courses they needed to complete to be certified. The FPOs were responsible for carrying these services. The OFC administered examinations leading to certification, and, although it was no longer involved in the ongoing direct delivery of training, it continued to deliver its Train-the-Trainer program until 1996. By 1995, the OFC's Train-the-Trainer program had been replaced by a Fire Service Instructor program based on the NFPA 1041 standard. This program was the core service provided to the fire sector; however, the training time had been reduced from a 5-day Saskatchewan-designed program to a 2-day NFPA training session.

By 1999, the OFC had 13.5 full-time staff, including the FPOs, Commissioner and office support staff. It had shifted away from the direct delivery of training, including the Fire Service Instructor program, and delegated that role to sector training providers through a partnership approach with the OFC. The field training of instructors and firefighters was based on National Fire Protection Association (NFPA) standards, and the OFC was only involved in the certification process offered through the International Fire Service Accreditation Congress (IFSAC).

The 1991-1992 period was a time of significant restructuring for the OFC when the Office commenced development of a strategic plan: The Level I Firefighter training course was certified; the OFC hosted the national conference of Canadian Fire Marshals and Fire Commissioners; and, the OFC was preparing recommendations for the Amendment of The Fire Prevention Act. As an indication of the OFC's shift away from the direct delivery of training, by 1991-92 80 municipal departments were conducting their own training. In the Annual Report for 1991-92, trends toward partnership arrangements for training are suggested:

> Training will be a key component of future directions for the Branch. This is especially so with the changing role of the fire service. Fire departments no longer solely deal with fire suppression. New roles are developing such as rescue, hazardous goods response, medical emergencies as well as prevention techniques. Firefighters will need more training to protect people, property and the environment.
>
> The delivery of more services and programs, such as prevention, inspections and investigations, at the local level will require capable people. Training will have to be provided to ensure they are available. (Office of the Fire Commissioner, 1992, p. 14)

The OFC's annual reports for the 1980s-1990s era reflect the two different types of training, which are referred to as basic fire schools and certificate courses. It appears as though these programs were usually delivered on-site in three- to five-day blocks, and the OFC maintained records of training initiatives and participants. Table 4 following details the level of volunteer training from 1978-79 to 1989-90; however,

comparable statistics are unavailable after that year as the method of reporting changed. At any rate, the OFC was in the process of moving away from the large-scale direct delivery of training at that time (Office of the Fire Commissioner, 1988, 1989, 1990). Standards setting and certification are the only training functions of today's OFC, and its records show that a network of some 200 registered fire service instructors deliver training across the province. These instructors were required to upgrade their qualifications to meet new certification standards by September 15, 1998 (D. Sanders, personal communication, April 13, 1998).

Table 4

Levels of Volunteer Training by the OFC from 1978-79 to 1989-90

Year	Number of training schools	Number of persons registered
1978-79	28	2,564
1979-80	51	3,319
1980-81	49	3,230
1981-82	27	2,039
1982-83	33	2,046
1983-84	31	2,246
1984-85	47	1,198
1985-86	55	930
1986-87	80	979
1987-88	96	1,138
1988-89	99	1,409
1989-90	81	1,909

Regulations Governing the Fire/Rescue Sector and Education, Training and Certification

General Authority of the OFC

The Fires Prevention Act (1912) stipulated that every community must designate a Local Assistant (LA) to the provincial Fire Commissioner. The LA was, and remains, bound to enforce the Act and Regulations within his/her jurisdiction. The OFC holds concurrent authority with the LA, which means that the OFC may wield its authority in any community, with the powers of the LA notwithstanding. The only areas where the OFC has exclusive jurisdiction are regional and provincial parks. The OFC was also mandated to provide consultative services to LAs.

In 1946, the OFC was made responsible for reviewing construction plans for fuel stations, hotels, educational facilities, and special care facilities. The list of responsibilities expanded until 1996, when the OFC's mandate to review plans was dropped, except for construction funded by government grants. Currently, the OFC provides inspection services only upon request for the following categories of facilities:

- health facilities;
- social service facilities (like group homes);
- establishments which sell liquor (for licensing requirements); and,
- Saskatchewan Property Management Corporation properties.

Provincial Legislation Governing the OFC

The following current provincial legislation impacts the operations of the OFC:

- The Fire Prevention Act, 1992;
- The Saskatchewan Fire Code Regulations, 1993;
- The Fire Insurance Fees and Reporting Regulations, 1993;
- The Fire Departments Platoon Act, 1978;
- The Highway Traffic Act, 1986;

- The Workers' Compensation Act, 1979;
- The Workers' Compensation Act Exclusion Regulations, 1985;
- The Environmental Spill Control Regulations, 1981;
- The Clean Air Act, 1989;
- The Environmental Management and Protection Act, 1984;
- The Occupational Health and Safety Act, 1993; and,
- The Occupational Health and Safety Regulations, 1996 (Pursuant to Section 45 of the Regulations, Part XXXII prescribes additional protection for firefighters)

A Code of Practice for Firefighters

A Code of Practice for Firefighters was developed under Section 45 of The Occupational Health and Safety Act 1993 and Occupational Health and Safety Regulations, 1996 (Saskatchewan Labour, 1996) and adopted by the province. This code was made effective on December 4, 1997, and it outlines the principles and regulatory aspects of the practice of firefighters and their employers. The Occupational Health and Safety Act Regulations and its Code of Practice are significant for the study's purposes for three reasons: 1. Section 480 of The Occupational Health and Safety Regulations exempts firefighters in the prairie, forest and mining sub-sectors; 2. Section 482 of the Occupational Health and Safety Regulations defines the employers' (e.g., fire departments) responsibilities regarding the training of firefighters; and, 3. The education and training of industrial firefighters, and the certification of instructors involved in the delivery of training, are derived from the health and safety regulations. Because of its significance to the fire/rescue sector, the following section is quoted from The Occupational Health and Safety Regulations (OHAS) ,1996.

Application of Part 480. This Part applies to firefighters who are engaged in emergency operations on a full-time or part-time basis and their employers, but does not apply to:

(a) firefighters fighting prairie or forest fires that the department, as defined in The Prairie and Forest Fires Act, 1982

(i) is responsible for, pursuant to subsection 8(2) of that Act; or

(ii) takes action to control and extinguish, pursuant to subsection 8(3) of that Act; or

(b) firefighters fighting fires underground at mines.

Section 482 deals with the training of firefighters and the competence of those delivering the training.

482(1) An employer shall ensure that:

(a) all firefighters receive the training necessary to ensure that the fire fighter is able to carry out safely any emergency operation that the firefighter will be expected to carry out; the training required by clause (a) is provided by competent persons.

Section 482(2) goes on to state that "An employer shall ensure that every fire-fighting vehicle is operated by a competent operator" (p. 221). Subsection 482(2) requires any person operating fire-fighting vehicles to be competent. This means the operator has sufficient knowledge, training and experience to operate a fire vehicle in a safe, effective and efficient manner because fire fighting vehicles handle quite differently from ordinary vehicles.

Training needs must be established in consultation with a health and safety committee, most commonly through a review of the operational assignments [Act, subsection 19(c), and Regulations, section 481]. The training shall:

- address occupational health and safety hazards associated with the operational assignments;
- be commensurate with the duties, functions and role that the firefighter is expected to perform;
- address procedures required to perform the operational assignments including procedures for safe exit from dangerous areas in the event of equipment failure or sudden changes in conditions;
- address the incident management system and the personnel accountability systems used by the fire department;
- address safe operation of equipment that is required to perform the operational assignments;
- be provided before the firefighter is permitted to engage in emergency operations, except on-the-job training assignments conducted under close supervision;
- be provided by competent persons (a competent person includes an individual who has expertise or abilities in subject areas whether or not the person is a member of a fire department); and,
- be reviewed periodically in consultation with the committee to ensure its adequacy.

The Office of the Fire Commissioner publishes a Training System Guide for courses available through the OFC, or fire departments may design and implement their own training courses provided that the requirement of 482(1)(b) of the OHAS regulations is met. Clause 482(1)(c) requires written records of training for all firefighters within the department. Records should include names of persons who have received the training, the nature of the training, and the dates when the training was provided. The OFC provides training and certification for Fire Service Instructors to ensure that firefighter training is delivered following a high standard. Overall, the foregoing subsections require the provision of training that is adequate to ensure that firefighters are able to safely perform the emergency operations expected of them to as identified by the regulations in Section 48 (p. 20).

Another piece of provincial legislation that impacts the fire/rescue sector is the Saskatchewan Mines Regulations, 1978 and their relationship to the Mine Safety Unit of Saskatchewan Labour's Occupational Health and Safety Division. There are five Occupational Health Officers attached to the Mine Safety Unit who regularly inspect each of the 28 mines in the province. In addition to the work of the officers, the presence of active occupational health committees is an important part of Saskatchewan mines' efforts to reduce accidents in the workplace:

> Saskatchewan mine supervisors are required to hold Department of Labour certification of their knowledge of the Occupational Health and Safety Act and Regulations, certification in First Aid, and certification in Supervisory Duties in an Emergency. No other industry in Saskatchewan has these safety requirements. (Saskatchewan Mining Association Inc., 1997b)

To address the Saskatchewan Mines Regulations requirements for underground firefighters and rescue teams, the Mine Rescue Unit, in partnership with industry employers and unions, has developed a Mine Emergency Response Program: Underground Mine Rescue General Training Manual (Saskatchewan Labour, 1998). The Saskatchewan Mines Regulations are currently under review to cover surface mining and the training manual is under revision. While the training manual covers requirements for underground fire fighting, mining companies have additional on-site requirements to meet specific site needs.

Federal Regulation and Bodies

The following federal codes and bodies guide the operations of the OFC and the fire/rescue sector:

- The National Fire Code of Canada, 1990;
- The National Building Code of Canada, 1990; and,
- The Criminal Code of Canada, 1985;
- The Fire Services Exemplary Services Medal Regulations (1987).

The National Fire Protection Association (NFPA) has established a set of standards to guide the education, training, and certification of members of the fire/rescue sector relative to the positions they hold and the industries in which they work. Examples include NFPA 600, Standard on Industrial Fire Brigades, and NFPA 1001, Standard for Firefighter Professional Qualifications.

International Regulations and Bodies

Members of Saskatchewan's fire/rescue sector and the OFC are involved in or connected with a number of international bodies and regulatory agencies. The nature of the relationships among stakeholders depends on the type of industry and fire fighting involved, the type of fire service protection provided, and the nature of education and training being undertaken by members. For the purposes of this study, the key international bodies accrediting agencies that certify firefighters and instructors in Saskatchewan. They are:

- International Fire Service Accreditation Congress (IFSAC)
- National Board of Fire Service Professional Qualifications (NPQF)

Municipal Authority

The Fire Prevention Act, 1992 defines a recognized fire department as a fire department established by or contracted with a municipality. The Urban Municipality Act, 1997, The Northern Municipality Act, 1997, and The Rural Municipality Act, 1997 provide municipal councils with the power to provide

for fire protection and prevention within their jurisdictions. Municipalities, in turn, are required to make bylaws establishing recognized fire departments and other bylaws governing such matters as the construction, operation and maintenance of fire halls, fire prevention, burning permits, and so forth. If a municipality does not establish such bylaws, then The Fire Prevention Act, 1992 remains in force. As well, municipalities are also urged to enter into mutual aid and fire protection agreements with neighboring municipalities.

Legislation Governing the Grasslands and Forest Sectors

As noted previously, grassland and forest firefighters are exempt from the Firefighters Code of Practice. The activities of firefighters in these sectors are governed by The Prairie and Forest Fires Act, 1982 and the education and training of members in this sector group falls within the mandate of Saskatchewan Environment and Resource Management (SERM).

Fire/Rescue Sector Agency Profiles

Office of the Fire Commissioner

In the introduction to the OFC's 1995 annual report, the duties of the OFC are summarized as follows:

> The Office of the Fire Commissioner (OFC) in accordance with The Fire Prevention Act, 1992 and Regulations, provides Saskatchewan communities, fire departments, and emergency service organizations with information, education and leadership programs and services that protect people, property and the environment from fire.
>
> This is accomplished by:
>
> - programs that promote fire prevention and the protection of life and property against fire;
> - training courses in fire prevention and fire fighting;
> - maintaining records of all fires reported in Saskatchewan, including the cause, origin, and circumstances of each fire and any other information the Fire Commissioner considers appropriate; and
> - investigating fires whenever the Fire Commissioner considers it necessary. (p. 6)

The OFC provides a variety of services.

Advisory. In an advisory role, the OFC interprets fire legislation and circulates information, and meets with fire chiefs, other fire department personnel and elected officials to assist them with planning and other issues.

Fire prevention/public education. In the area of fire protection and public education, the OFC:

- trains local fire service personnel to carry out public education in their own communities;
- educates school children and seniors;
- conducts awareness campaigns;
- provides information on fire safety/prevention and evacuation drills for administrators and staff in hospitals, hotels and other facilities (more than 10,000 received training in fire prevention and use of equipment in 1995); and,
- conducts fire prevention programs (65 programs involving 1501 people in 1995) and training programs (432 hours spent on training 516 people in 1995).

Investigation and inspection services. The services provided by the OFC for this category include:

- fire prevention officers investigating fires of special interest;
- inspecting large public buildings to ensure fire safety standards are being met;
- conducting reviews of plans for regulated buildings with emphasis on buildings which store dangerous goods (1462 such reviews were conducted in 1995); and
- responding to field technical inquiries related to building and fire codes (1800 in 1995).

Program support to municipalities, fire departments, and the public. The OFC supports these programs by:

- maintaining student activity records for all fire department members;
- hearing appeals regarding fire orders;
- maintaining technical and reference libraries;
- lending training modules and emergency response training packages to fire departments and agencies for self-delivery;
- maintaining a video library on fire prevention and education;
- producing newsletters;
- gathering and analyzing statistical information relating to fires; and,
- identifying trends/innovations.

In the maintenance of training activity records, the office serves as a certifying agency and the latest available statistics show that there are 253 provincially recognized firefighters and 92 Level II NFPA certified firefighters in Saskatchewan. The number of certified instructors stands at 23 holding Level I and 80 holding Level II certification.

Partnerships. The OFC engages in both external and internal partnerships. External partnerships include:

- provision of materials, staff and technical services to the Saskatchewan Association of Fire Chiefs, the Saskatchewan Volunteer Firefighters' Association, and the Saskatchewan Chapter of the International Association of Arson Investigators;
- maintenance of relationships with the Prairie Loss Prevention League, Architects' Association, and Construction Specifications Canada;
- provision of training and technical assistance to the Royal Canadian Mounted Police, police services, and insurance companies; and,
- supporting public education delivery by holding memberships in organizations, such as Fire Prevention Canada.
- Saskatchewan's regional colleges
- Saskatchewan Institute of Applied Science and Technology
- Saskatchewan Indian Institute of Technology
- Vermilion and Manitoba fire colleges

The OFC articulated the following future directions in its 1995 annual report:

> [The OFC will] provide leadership and direction to local authorities placing greater emphasis in the areas of public education and training.
>
> Training local assistants to provide fire prevention and education programs within their own community will be further addressed in 1996.
>
> The Office of the Fire Commissioner will continue to provide support and expertise for the investigation of fires, and training of local fire, police and insurance personnel. The Office will work with organizations throughout the province to make training more accessible. Program support and scheduling of regional schools will continue in co-operation with the Saskatchewan Volunteer Firefighters' Association, the Saskatchewan Association of Fire Chiefs and Community Colleges. (p. 7)

The significant change since the 1995 report has been in the area of education and training where the OFC has withdrawn from direct delivery to the sector.

Fire Departments

Career Fire Departments. There are four fire departments in the province that operate fully on the basis of full-time career firefighters. These departments are located in Moose Jaw, Prince Albert, Regina and Saskatoon. Each department is responsible for the training and development of its members, as well as for the provision of public education programming in the community.

Composite Fire Departments. The number of departments varies with how the term composite is understood. For the purpose of this study, composite departments are defined as those with both career and part-time, or auxiliary, firefighters; for example, a department with a paid chief, but volunteer firefighters would not be classified as a composite department. Using this definition, there are four composite fire departments in the province located in North Battleford, Swift Current, Weyburn and Yorkton.

Volunteer Fire Departments. Volunteer fire departments comprise the biggest group of firefighters in Saskatchewan, with the majority being members of the Saskatchewan Volunteer Firefighters Association (SVFFA). The 1999 records of the SVFFA show that there are 61 registered volunteer fire departments having some 3368 members throughout the province. The number providing active service in 1999, however, is 128 representing approximately 1970 active SVFFA firefighters. The SVFFA defines active departments as those who provide ongoing training related to standards, and maintain training records of members' training activities. There is no established number of activities required of departments to be placed in the active category, but departments who do not provide any training or maintain records are deemed inactive.

The primary reason given by participants in this study about the inactivity of departments is lack of access to training which results in a problem with finding and keeping leadership and declining interest on the part of members. At the time of this study, the OFC was in the process of surveying the volunteer departments and categorizing them according to the activities they undertake. This is not a performance appraisal of the departments; rather, the survey is being conducted strictly for the OFC's internal planning purposes, and it will not be completed until early 1999. Only a portion of the results will be available to third parties (D. Sanders, personal communication, April 13, 1998).

First Nations and Indian and Northern Affairs Canada

Fire safety, protection and suppression in First Nations' communities is a federal responsibility, and First Nations authorities manage and deliver their own fire services (Indian and Northern Affairs Canada, 1999). Section 65 of The Indian Act, 1985 states: "The Minister may pay from capital monies . . . expenses incurred to prevent or suppress grass or forest fires or to protect the property of Indians in cases of emergency." This Act is administered by Indian and Northern Affairs Canada (INAC) who currently provides approximately $1.5m to the province's 70 First Nations for the purchase and maintenance of fire equipment, education and training, and other fire-related programs.

To be eligible for funding, INAC has established guidelines for the provision of capital facilities and maintenance that call for adherence to levels of standards for fire protection in First Nations communities. These guidelines, which are outlined in INAC document TID-FP-01, Fire Protection Services, support INAC's role in the provision of fire-related programs and services. The document covers such issues as policy, codes and standards, funding, inspections and engineering services, fire protection and reporting, and a listing of best practice documents. Some First Nations have formal agreements–memoranda of understanding–with neighboring municipalities to provide fire services on reserve.

The Labour Division of Human Resources Development Canada (HRDC) also provides services in First nations communities, chiefly safety inspections and building plan approvals. Occasionally, HRDC will also provide seminars about fire safety on reserve but these are at a basic level and ought not to be construed as firefighter training (G. Balas, personal communication, July 10, 1998).

Because matters related to fire safety, protection and suppression for First Nations fall under the jurisdiction of the federal government, there are no formal ties between First Nations and the OFC in Saskatchewan. Some consultation occurs between First Nations organizations and the OFC, and the OFC is involved in the delivery of some community/school educational programming and the certification of fire instructors who train First Nations firefighters.

Of the annual funding allocated to Saskatchewan's First Nations, INAC provides $100,000.00 to the Saskatchewan Indian Institute of Technology (SIIT) for the education and training of First Nations' firefighters (Saskatchewan Indian Institute of Technology, 1999; Indian and Northern Affairs Canada, 1999).

To guide the development of fire services in First Nations, INAC developed an educational document, Technical Information Document: Community Fire Protection, which outlines essential information community leaders need to understand and carry out their fire protection responsibilities in the communities. The document outlines community responsibilities for First Nations leaders, fire chiefs, elders, youth, adults and parents, in establishing and maintaining fire safety, education, inspection, prevention, protection and suppression services.

It is difficult to ascertain how many First Nations communities meet the INAC compliance standards for an operational fire department; however, it is clear that very few of the 92 First Nations communities have organized fire protection systems. These communities fall under the jurisdiction of some 70 First Nations, and INAC provides each Nation with funding to establish fire protection and suppression services in all communities. The current situation is that most communities have no protection equipment or system in place, and some have at least one piece of equipment but no fire department. It appears that the number of active departments is in the range of 9-11, and it is only these departments that are involved in the provision of education and training for members.

Of the seven tribal councils affiliated with the Federation of Saskatchewan Indian Nations (FSIN) in Saskatchewan, the Prince Albert Grand Council is the only council to have a full-time office dedicated to fire protection, education and suppression program. The Council has a full-time Fire Prevention Officer who is responsible for fire-related matters in the Council's communities. The Council is also involved in the training of forest firefighters who work for Saskatchewan Environment and Resource Management during the fire season. Apart from its education and training delivery relationship with SIIT, FSIN itself has no senior level officer assigned the responsibility of fire protection in First Nations. While there are nine independent First Nations who are unaffiliated with the FSIN, each First Nation has equal access to INAC's fire-related programs and services.

Saskatchewan Environment and Resource Management

Saskatchewan Environment and Resource Management (SERM) established the Fire Management and Forest Protection Branch as a major fire fighting operational base and departmental office in Prince Albert. SERM derives its fire fighting and training mandate from The Prairie and Forest Fires Act, 1982, and, since February, 1996, the Prince Albert-based Branch has held near complete responsibility for forest fire suppression in northern Saskatchewan. The organizational structure at the Fire Management and Forest Protection Branch assigns education and training to the positions of Training Coordinator and Preparedness Fire Operations Supervisor. There is also an Integrated Fire and Forest Protection Manager responsible for extension training and Aboriginal liaison. Most personnel are stationed in Prince Albert.

In a review of the efficiency of departmental structure, Mandryk (1998) noted the following:

> In forest fire fighting . . . the Environment Department totally restructured its operations after the devastating fires in 1995 so it now has fewer attack bases but responds to fires more quickly. It has also added an extra $27 million to its budget since 1995 to buy or rent bigger air tankers or helicopters. The net result is it now gets to little fires quicker, putting them out before they become costly big fires (Mandryk, 1998, p. A5).

SERM describes the Branch's mandate and types of services as follows:

Mandate:

The protection of forest resources, communities and property in and near provincial forest landfalls within the mandate of [SERM] and SERM's commitment to sustainable resource management.

Services:

- develops forest fire management policies and operational guidelines governing forest fire priorities, preparedness, suppression, expenditures, and fire safety activities;
- directs and supports the field fire management organization;
- negotiates and participates in cross border resource sharing and fire fighting agreements;
- maintains provincial fire suppression equipment and provides repair services;
- oversees SERM's radio communication section which maintains the department's radio network and provides special contract services;
- coordinates the provincial air attack and maintains Saskatchewan's airtanker fleet;
- develops, delivers and oversees a wide range of fire fighting training and courses;
- operates a fire weather service which generates a full range of fire weather products;
- conducts applied fire science research and technology transfer; and,
- undertakes fire prevention and education campaigns and programs. (Saskatchewan Environment and Resource Management, 1998d)

Following unusually high expenditures during the 1995 forest fire season, the provincial Treasury Board ordered SERM to review forest fire policy in the province. The 1995-96 budget for the Branch was $23,568,000; by comparison, the total budget for SERM was $86,795,000 (Saskatchewan Environment and Resource Management, 1998a). The consultants contracted to undertake the departmental review criticized Branch operations quite severely and recommended significant changes. In summary, they recommended a more militaristic, less bureaucratic approach to delivering fire management services. Some of the recommendations, which follow, have implications for training/human resource development (Smith, Goodman & Jeffrey, 1996).

Consultants' Recommendations for SERM

- Conservation Officers - critical players in the delivery of fire management services - are often inexperienced and lack specific training;
- compensation concerns and union scope issues should be resolved as they are impairing the ability to have the best and most experienced staff assigned to the service;
- succession planning for key fire positions is lacking;
- the number of permanent staff dedicated to fire management services should be increased; and,
- during times of significant fire activity, competent staff from other SERM programs/branches should be commandeered to the fire service (advance training would naturally be necessary) (Appendix B).

The Prairie and Forest Fires Act, 1982, assigns SERM responsibility for grassland fire fighting (also known as "prairie" fire fighting, or, more generally, as wildlands fire fighting). For operational purposes, SERM has identified five ecoregions in the province: the Shield, Western Boreal, Eastern Boreal, Parkland, and

Grassland. The Department maintains a service bureau in Swift Current, the largest center in the ecoregion (Sask. tchewan Environment and Resource Management, 1998c).

Although the OFC and SERM are provincial government agencies involved in a similar activity, fire safety, little interaction occurs between them. At the policy level, for example, no representative from SERM sits on the OFC's Fire Service Advisory Committee. At the operational level, the established protocol states that "when a wildlands fire involves bush exceeding four feet in height, the municipal firefighters defer and call in the forest/prairie firefighters" (Office of the Fire Commissioner, personal communication, July 21, 1998). This interface of fire fighting responsibilities is one area identified by SERM as requiring considerable attention in the future development of the fire/rescue sector. SERM needs to know the capacity and incident command structure of municipal fire departments and vice versa so emergency situations can be better managed and suppression strategies developed.

General Industry

Profiling the industrial sub-sector is difficult because every industrial site has its own form of fire service and organizational structure to meet its particular needs. Site visits to pulp and paper mills, a fertilizer plant, an oil refinery, and mine sites during this study revealed that the number of firefighters and types of fire equipment used vary from industry to industry. There are also significant differences from site to site within a single industry (e.g. open pit, slurry, or underground mining operations) where the firefighter training requirements and incident command systems differ. Other factors that determine a company's investment in equipment and training include distance from municipal or other industrial fire protection and suppression services, nature of the industry (e.g. oil processing and storage, pulp and paper production, chemical manufacturing, power generation) and the presence of mutual aid agreements. On average, industrial sites in Saskatchewan have a team of up to 10-12 firefighters on each operating shift, and they have an arrangement for additional members to be called in if required.

Many companies have mutual aid agreements with local municipal fire departments and there is a clear pattern of municipal firefighters belonging to industrial fire departments, and vice versa. This interface of industrial and municipal fire fighting has long been a topic of discussion in the fire/rescue sector, as municipal firefighters have access to a system of training leading to certification, while industrial firefighters do not. Industrial mine rescue teams also have access to a certification program, while their counterparts who provide above-ground protection and rescue services do not. There is an NFPA 600 standard for Industrial Fire Brigades; however, there is no set of core standards that meets the needs of Saskatchewan's industrial firefighters, and no organized system in place to train and certify industrial firefighters. Industry also lacks a centralized system for tracking the training of industrial firefighters.

Given the lack of co-ordination and standards, each work site currently trains according to the relative legislative requirements (e.g. Mine Safety Act or Occupational Health and Safety Regulations) and to meet its own needs. In addition, the type of industrial site in which an individual works is regulated by a different legislative act, whether it be a government fire service, an underground mine fire service, or an above ground fire service. The result is that there is no industry-wide training program and no portability of credits from site to site, or from employer to employer. These foregoing factors are seen as barriers for the delivery, credit transfer, portability and recognition of education and training programs across the sector.

Equally problematic to profiling the industrial sector, it was difficult to determine the actual investment companies make in fire/rescue services in Saskatchewan's workplaces; however, the study's industrial participants noted it ranges in the tens of millions of dollars annually. Taking a brief look at one industry, the mining industry, for example, one can readily gain some sense of the importance of fire safety and education and training in that sector.

Statistics show that the Saskatchewan mining industry was the province's third largest employer in 1996, having $2.02 billion in sales and some 18,000 employees. Providing for the protection of this number of people requires a considerable investment in fire safety across the industry. The Saskatchewan Mining Association, which represents 38 mining and exploration companies, noted that the organizational structure of the Association includes a standing Safety Committee; however, each mine makes its own arrangements for training firefighters and mine rescue teams (Saskatchewan Mining Association, 1997a).

Other areas for consideration include the pulp and paper industry and the investment in plant protection by companies; in forest, grasslands and wildlands by SERM and oil companies; in urban sites such as oil refineries, steel plants, and chemical plants, and the list goes on. The industrial fire/rescue service is one of heavy investment in equipment, education and training. The site visits showed that industry carries out ongoing workplace educational programs for all employees, and offers training to firefighters on a regularly scheduled basis. In the areas of capital purchase and full-time supervisory and administrative costs alone, employers make a considerable investment in fire/rescue services.

Participants involved in site visits noted that the cost of fire protection and training extends far beyond the purchase of equipment. There are the costs of operating and maintaining plant fire protection and suppression equipment, personal protective clothing, communications systems, trucks, discharging and refilling extinguishers, refilling SCBA, and other visible costs. Employers also cover the wages of firefighters, trainers and supervisors involved in training during both normal working hours and on overtime; and the cost of replacement workers where necessary. Industry pays the travel, wages, accommodations, and training costs of firefighters, trainers and supervisors who participate in off-site courses. Companies also purchase a considerable number of contracted education and training programs and services. The OFC does not work directly with general industry; rather, industry is governed, as noted previously, by relevant legislation that pertains to the particular industry involved (Office of the Fire Commissioner, personal communication, April 13, 1998).

Professional Associations

A number of national and international professional associations and organizations influence the operation of the provincial fire service. The following professional associations are active and have a significant Saskatchewan membership.

International Association of Arson Investigators, Saskatchewan Chapter

The objectives and purposes of this Association are to:

- unite, for mutual benefit, those public officials or private concerns engaged in the control of arson and other kindred crimes;
- provide for an exchange of technical information and developments;
- encourage cooperation between public service agencies and associations to further the suppression of arson;
- encourage high professional standards of conduct among arson investigators and to strive continually to eliminate all factors which interfere with the administration of crime suppression;
- foster greater professional competence in the investigation techniques and recognition of the crime of arson; and,
- encourage and promote the team concept in fire investigations which bring together fire, police and insurance officials to investigate fires jointly.

Annual training courses are held dealing with various aspects of fire investigation (Office of the Fire Commissioner, 1997, p. 4).

Saskatchewan Association of Fire Chiefs

The Saskatchewan Association of Fire Chiefs (SAFC) is an organization comprised of members from both industrial and municipal fire departments. An elected board of directors, with representation from across the province, manages the Association's daily affairs, schedules general and district meetings, chairs committees addressing various issues, and arranges the Association's annual conference. While the SAFC primarily serves the needs of fire chiefs and officers, the Association acts as a lobby group and actively addresses issues of concern to the fire service. The SAFC also develops policy through the adoption of resolutions at its annual conference and makes recommendations to appropriate authorities and all regulatory and political levels. The SAFC has two sub-agencies associated with it, one for Fire Service Instructors and one for Fire Prevention Inspectors (Office of the Fire Commissioner, 1997, p. 2). An area of current concern for the SAFC is the personnel profile of fire departments in terms of equity representation. The Association is very aware of the need to recruit from all groups so fire departments are reflective of the province's population, particularly the community served by a department. In terms of

recruitment practices, the SAFC sees growing trends toward the hiring of graduates of institutional pre-employment programs and gaining certification for all training programs delivered internally in each department. Past practice has been to conduct a significant amount of in-house training that did not carry certification; however, changing times, advancing technology, and increasing levels of responsibility for public and members' safety now call for the certification of training by external agencies. While in-house training will continue to be delivered by fire department personnel, the SAFC sees external certifying agencies being involved. The use of certification agencies for professional driving and fire inspection training are two current examples of change. As the association's 1998 annual report notes (Saskatchewan Association of Fire Chiefs, 1998), officers are in need of a professional development program aimed at the administration of departments and their training systems.

Saskatchewan Professional Firefighters Association

The Saskatchewan Professional Firefighters Association (SPFFA) was formed in 1944 by firefighters in Prince Albert, Moose Jaw, Regina and Saskatoon. The SPFFA currently represents approximately 700 career firefighters in those cities, plus others in Swift Current, Weyburn, Yorkton, and North Battleford.

Although all career firefighters in Saskatchewan are represented through autonomous Locals of the International Association of Firefighters, the SPFFA represent its members in matters concerning all firefighters. The Association coordinates and assists Locals with bargaining and other work related issues, and it works with the provincial and federal governments to improve legislation regarding firefighter benefits, safety, and public safety. The SPFFA meets in convention annually where the delegates from each Local decide policy and elect an Executive (Office of the Fire Commissioner, 1997, Unit VIII, p. 2). The SPFFA is also involved in the promotion of fire safety through community relations and in working with health services agencies involved in the provision of burn safety programs and services.

A primary concern of the SPFFA is the growing numbers of instances where young people from neighbouring provinces, who have completed pre-employment training in their home province, are being hired by career fire departments because Saskatchewan has no training facility of its own.

Saskatchewan Volunteer Firefighters Association Inc.

The Saskatchewan Volunteer Firefighters Association (SVFFA) represents firefighters who provide fire protection and suppression services to Saskatchewan's small towns and rural communities. The Association's mission is to provide a responsible voice for, and leadership to, the volunteer firefighters of Saskatchewan, with the intent of minimizing loss of life and property in all aspects of volunteer emergency response. The objectives of the SVFFA include:

- providing training and education for volunteer emergency responders;
- encouraging cooperation with all emergency response organizations through the joint efforts of public education, fire prevention and public safety campaigns; and
- establishing responsible representation and leadership toward the role of the volunteer emergency responder in the communities of Saskatchewan.

Although the Association does not represent all volunteer firefighters, membership is open to the volunteer or retired members of any municipal or industrial emergency response team and their auxiliaries. The SVFF is also a distributor of the International Fire Service Training Association (IFSTA) training materials to its membership (Office of the Fire Commissioner, 1997, p. 3).

The 1999 membership list of the SVFFA shows that 361 volunteer fire departments are registered with SVFFA in Saskatchewan, and 128 of that number are active departments within SVFFA guidelines. The Association's records show that, from the estimated 3368 firefighters in Saskatchewan, approximately 1975 are active with a department. A vast majority of the volunteer firefighters are not certified, and there are instances where departments have nobody certified to any level, including the chief. The OFC statistics show 512 registered fire departments in Saskatchewan, and this number does not include First Nations, airport or industrial departments. The OFC's records also show that there are some 7700 firefighters of which 700 are careers or paid firefighters.

Saskatchewan First Nations Firefighters Association

The Saskatchewan First Nations Firefighters Association (SFNFFA), was formed in 1999 to represent the views of First Nations firefighters in Saskatchewan. The Association is in a developmental phase and is promoting itself to First Nations leaders, firefighters, organizations and communities. The key aims of the SFNFFA are to promote the recruitment and training of members, to promote fire education in communities, to establish operational fire departments in First Nations communities, and to represent First Nations firefighters in sector related matters. The SFNFFA has received recognition from FSIN and is now in the process of contacting Tribal Councils with the aim of establishing itself in each Council's communities.

SIIT is currently the primary education and training delivery agent for First Nations fire departments, and the Institute provides training on a request-from-community basis. Upon receiving a request, SIIT contracts instructional expertise for delivery and utilizes the provincial OFC as a certifying agency. Derek Murray Consulting Associates Inc. (1993) carried out a study, Fire and Safety Study on Saskatchewan Indian Reserves, to determine the state of fire protection and suppression services in First Nations communities. The consultants recommended that First Nations establish full-time fire chief and inspector positions at the community level with an expectation that this would lead to the creation of working fire departments.

National Profile of Firefighters

A national database on volunteer fire/rescue service shows that Multiculturalism and Citizenship Canada undertook a national survey of volunteer activity in 1978. A national profile of volunteer firefighters was one of the monographs issued from this survey; unfortunately, because only national statistics are available, it is difficult to tell how accurately this profile describes Saskatchewan volunteer firefighters.

The profile shows that there were 94,000 fire service volunteers in Canada in 1987, and, of that number, 17,000 were female. The study showed that, as a maximum estimate, 2,000 of the female volunteers had actually fought fires; the rest were engaged in fund raising activities associated with their fire department. The most time-consuming aspect of volunteer work was in training and fire fighting, with 50% of all volunteers having been actively involved in a fire. Other responses included serving on the board or executive committee of the fire department (5%), supervising other volunteers as a fire officer (4%), and repairing and maintaining vehicles and equipment (4%). In addition to fighting fires, volunteers spend considerable time involved in fund raising activities to purchase new equipment for their fire departments. The administrative functions of volunteers are also underestimated as 33% of respondents reported sitting on the fire department board, and 28% said they managed other volunteers.

Fifty-one percent, or 48,000 firefighters in Canada, live in rural areas or in small towns with a population of less than 15,000. Nineteen percent live in small cities with populations between 15,000 to 30,000, and twenty-six percent live in cities with a population of greater than 100,000. The researchers speculated that many of the urban volunteers might be career firefighters who volunteer their services to nearby smaller communities.

The study showed that, on average, ten percent of fire service volunteers have no high school education; 57% have a high school education (or some part thereof); 11% have some post-secondary training, but no certificate; and, 22% have a diploma or university degree. Compared to a typical Canadian volunteer, a fire service volunteer is only half as likely to possess a diploma or degree (38% versus 22%); consequently, many more fire service volunteers must fill positions such as fire officer or board member without higher levels of education. While no attempt was made to determine the educational levels of volunteer or career firefighters in Saskatchewan, the entry level to a fire department is high school graduation, and there is a trend toward entry-level positions in career departments requiring the completion of a post-secondary institutional firefighter training program.

The household income distribution of fire service volunteers is somewhat lower when compared to all Canadian volunteers. The distributions are similar until the $30,000 plateau is reached. After that point, a greater percentage of fire service volunteers have household incomes between $30,000 and $40,000, and the percentages are similar between $40,000 and $60,000. Compared with volunteer firefighters, however, three times as many of all Canadian volunteers have household incomes over $60,000. As a comparison, the 1997 income for career firefighters in entry-level to a maximum level of $45,284 after 10 years (Human Resources Development Canada,

1998). Municipal income for volunteer firefighters in Saskatchewan ranges from none in some departments, to an honorarium in others, to a rate per hour for individuals involved in fire departmental activities. Volunteer firefighters who receive income from a municipality are eligible for a Revenue Canada income deduction of up to $500.00 in recognition of the expenses associated with volunteering their services (Revenue Canada @ http://www.rc.gc.ca).

Like in Saskatchewan, the recruitment and retention of firefighters is a problem in Canada. Informal, word-of-mouth recruitment practices are predominate in the volunteer fire service, especially in smaller communities,. According to a 1978 Multiculturalism and Citizenship Canada study, 48% of members were asked to join by other members, 27% took the initiative to approach the fire department on their own, and only 5% responded to an advertisement. The unfortunate outcome of these recruitment practices is that that they close the loops as to who is likely to join a fire department: They do not encourage females to join, those with higher education and income will likely not be invited, and, minorities will not be attracted to the volunteer fire service. This is not to infer that volunteer fire departments deliberately discriminate against these groups; rather, the process is unintentional and subtle. This situation requires review as the problem is compounded when we know that many volunteer departments have a personnel shortage and yet do not recruit from other groups in their communities.

The SVFFA supports the view that the most pressing problem facing volunteer departments is the recruitment and retention of members. Benoit (1997) reported that the reasons for this is that volunteer firefighters in general feel inadequate and not very satisfied with their volunteering (p. 4). A major contributor to the satisfaction or dissatisfaction of many firefighters lies in their access to quality and consistent training. The better and more consistent the training, the easier it is to recruit and maintain a good fire department; and, the less access and inconsistent training is, the tougher it is for a department to find and keep members. Members of the SVFFA support this view.

Benoit (1987) speculated as to what determines the level of satisfaction with volunteering:

> Satisfaction with training provided by the department is probably relevant. Of those who needed training, 68% of the fire service volunteers maintain that their level of training was "the right amount;" the remaining 32% maintain that it was "too little." A more detailed examination of the benefit of training and the volunteer experience is evident when the fire service volunteers were asked what skills they had learned. Those who had a diploma or degree benefited most by learning technical skills such as equipment repair and fire fighting (52%). On the other hand, those without a diploma or degree have benefited most by learning "leadership skills" (42%) (pp. 4-5).

The study recommended broader recruitment practices be employed and better capital funding be provided from government to enable fire departments to concentrate on volunteer training. The study concluded with a call for more research into this important community service.

One example of future research was the fact that many fire service volunteers quit before completing their first year. Given the growing problem with firefighter shortages, learning how to improve recruitment and retention of recruits would be valuable information. As with access to training, this area is of considerable concern to the SVFFA. Finally, learning how volunteer firefighters can effectively work with career firefighters will become valuable information as the demand for composite departments becomes more common in small towns and cities (Benoit, 1987).

Canadian Association of Fire Chiefs

The Canadian Association of Fire Chiefs (CAFC) is a non-profit, national public service organization whose primary goals are to reduce the loss of life and property from fire, and to advance the science and technology of fire service in Canada. The activities of CAFC are varied, the main activities being the representation of fire chiefs on national and international issues, and participation of members on national technical committees. Other notable activities include developing public programs to further promote safety, and sponsoring professional and public education programs aimed at improving methods and standards in fire prevention and fire service administration. The CAFC is the Canadian distributor for IFSTA and NFPA publications (Office of the Fire Commissioner, 1997, p. 1). As noted elsewhere in this report, the CAFC is currently involved in developing a professional designation program for chiefs and deputy chiefs.

Canadian Association of Fire Investigators

The Canadian Association of Fire Investigators (CAFI) is a national organization with its primary role as the investigation and suppression of the crime of arson. The aims of the Association are to provide general information to its members, advance scientific investigative techniques, review the latest investigative and laboratory aids, and present detailed subjects which lead to a more effective detection, apprehension, and prosecution of fire setters.

The national objectives of the CAFI include:

- to develop fellowship among those public officials and private persons actively engaged in fire investigations;
- to provide for exchange of technical information and developments;
- to cooperate with law enforcement agencies, the fire services, and other associations to improve fire investigation techniques for the suppression of fire crimes; and,
- to maintain the highest possible ethical and professional standards for fire investigations. (Office of the Fire Commissioner, 1997, p. 5)

International Fire Service Training Association

The International Fire Service Training Association (IFSTA) is an organization that exists for the purpose of serving firefighters' training needs. IFSTA's primary role is the development, publishing and distribution of training materials for the firefighter or emergency responder. IFSTA is headquartered at Oklahoma State University and uses Fire Protection Publications (a part of OSU) as the publisher of training manuals (Office of the Fire Commissioner, 1997, p. 6). IFSTA manuals are developed by fire professionals from all over North America and are closely based on the standards of NFPA, OSHA, or other recognized groups. IFSTA training materials are used in all 50 states, several Canadian provinces, the military, and foreign countries. The Office of the Fire Commissioner uses IFSTA training packages for Level I and II Firefighter and Level I Officer training.

National Fire Protection Association

Based in Massachusetts, the National Fire Protection Association (NFPA) was established in 1896 with a mission of safeguarding people, property and the environment from destructive fire, for using scientific engineering techniques, and providing education. NFPA activities generally fall into two broad interrelated areas: technical and educational.

The basic technical activity involves the development, publication and dissemination of timely consensus standards intended to minimize the possibility and effects of fire in all aspects of contemporary activity. The NFPA serves to educate people of all ages, and from all regions, to prevent the loss of life and property from fire. Key to these ongoing efforts are the teaching of standards and the importance of fire safety as a way of life (Office of the Fire Commissioner, 1997, p. 7).

Providers of Education and Training Programs and Services

The number of providers of education and training programs to Saskatchewan's fire sector is difficult to establish. Sales agents, private consultants, certified fire service instructors, trainers in career fire departments, industrial providers, and a significant number of out-of-province agencies comprise the providers group. The providers and programs range from basic St. John Ambulance and Red Cross first aid courses, to comprehensive industrial and fire departmental courses such as hazardous goods transportation and flashover training. What has been lacking in Saskatchewan; however, has been a central education and training body which the sector can rally around and use as catalyst to co-ordinate and guide the past and future development of the sector. Following is an overview of efforts to establish a fire college in Saskatchewan, and examples of provider agencies and their programs.

Fire College Initiatives

There have been a number of attempts to establish a provincial fire training institution in Saskatchewan. The earliest example of a public office/agency found in this study was the establishment of the position of Principal of Training in the Office of Fire Commissioner in 1987-88. This position, and the concept of a centralized office for the education and training in Saskatchewan, was lost due to provincial restraints within a 4-year span.

Another initiative was undertaken in Prince Albert in 1994, when the municipal fire department and some local interested parties developed a proposal out to establish the Prince Albert Regional Fire College. In addition to the support of the OFC, the working group had, or saw as its partners, the following agencies: SIAST; SIIT; the Fire Protection Branch of Saskatchewan Environment and Resource Management; the Prince Albert Grand Council (PAGC) and local First Nations; the SVFFA; and, private sector partners such as Weyerhaeuser, Cogema, and Cameco. The estimated cost of infrastructure for establishing the college was in the range of $900,000.00, with projected operating expenses in the range of $260,000.00 and projected revenue in the range of $226,000.00 in its first year of operation. Revenue was to be derived mainly from local subscribers. This project was developed to a documented-proposal stage; however, a series of setbacks resulted in it being put aside for the next five years. The concept has again been revived and the PAGC, SIAST, and the Prince Albert Fire Department are spearheading a move to establish the institution.

Trans Canada Pipelines Limited (TCPL), Regina Regional Office, set out to establish a training facility in Saskatchewan in 1997 (Trans Canada Pipelines Limited, 1997). Initially, TCPL had considered using the services of the Saskatchewan Safety Council and Global Training Centre, an Alberta-based company that provides fire education and training programs to the oil industry. After conducting an internal cost analysis of company training and carrying out a feasibility study to determine the potential for establishing a facility in Saskatchewan, TCPL decided to pursue the development of a Safety Training Centre. TCPL noted that the supply of training services in Saskatchewan was fragmented and there was no one supplier who dominated the market. Using safety as its focus, the company recognized an opportunity to provide a comprehensive range of training that could be offered as a standard package, or as niche and customized programs to the province's fire/rescue sector. TCPL also saw an opportunity to market the Centre's programs outside the province.

TCPL carried out analyses of industry needs, potential buyers and entrants; legislation governing Saskatchewan workplaces and workers; and, the rivalry among industry participants. Using pessimistic and optimistic projections, the company projected a profit on the operation in its first year. It was projected that, with the right marketing and operational planning, the training centre could show a return on investment (ROI) of 16% in its first year, and a 20% ROI by year two. A negative change in the oil market coupled with personnel changes within TCPL resulted in this initiative being given low priority on the company's list of priorities, and it was shelved.

With the support of the OFC, the most recent undertaking was the opening of the Emergency Services Training Institute in Martensville, Saskatchewan. This joint venture of MD Ambulance and the Saskatoon Tribal Council offers programs in medical, firefighting, safety and protective services, health services, and human resources. The firefighting program was advertised in December, 1998, and started with 12 participants in February, 1999. This group will graduate on May 28, 1999, and a second program is scheduled to start in August.

On the industrial side, the Consumer Cooperative Refinery Limited carried out a review of its education and training for emergency fire crews and hazmat teams in February, 1998. The review covered programs being offered at other oil processing plants in Saskatchewan and Alberta, and resulted in a proposed framework of Level I Firefighter courses based on NFPA 1001 standard and using IFSTA's firefighter training manual, Essentials of Firefighting, as the primary instructional text. This framework was intended to meet the industrial firefighter requirements of the provincial OH&S Regulation #482. As with other industrial sites in Saskatchewan, the refinery wanted to establish some kind of occupational profile or framework that they could use to guide the education and training of industrial firefighters. They also wanted to establish an electronic and paper database to record and track which firefighters had completed what modules for both the refinery and the OFC.

In addition to the foregoing, there are many examples of provider agencies and courses being offered to the fire/rescue sector. Following are some selected agencies and the programs, courses, and services they offer.

Office of the Fire Commissioner

Many educational institutions and individual providers deliver fire service training in Saskatchewan (Office of the Fire Commissioner, personal communication, April 13, 1998), and almost all use the OFC's approved training programs and syllabus. For the most part "fire service training in Saskatchewan is delivered through a province-wide Fire Service Instructor system supported by the Office of the Fire Commissioner" (Office of the Fire Commissioner, 1997, p. 2). These training programs are listed in Table 5 following, and details can be found in the OFC's Training System Guide. The programs lead to certification and professional designations, and some identified in the Training System Guide are delivered by public or private agencies. Following is a sample list of courses and provider agencies:

- Wildlands Fire Fighting, delivered by SERM;
- Certificate Courses for Officers, delivered by Henson College, Dalhousie University; and,
- Fireworks Supervisor's Course, delivered by the Department of Energy, Mines and Resources, Explosives Division.

Table 5

Training Programs: OFC's Training System Guide –

Firefighter Basic Skills Series

- NFPA Wildlands Fire Fighting, delivered by SERM
- 1001 Level I and II Firefighter
- Safety Series
- NFPA 1002 Apparatus Driver Operator
- Emergency Vehicle Operator Course

Under the Firefighter Suppression series:

- Engine Company Operations
- Rescue Company Operations
- Truck Company Operations
- Forcible Entry series
- Positive Pressure Ventilation series
- Wildlands Fire Fighting
- NFPA 472 Awareness Level Dangerous Goods Response
- NFPA 472 Operational Level Dangerous Goods Response
- NFPA 472 Technician Level Dangerous Goods Course
- Fighting Vehicle Fires

Under the Fire Department Officer series:

- NFPA Company Officer
- Chief Officer
- Certificate Courses for Officers

Under the Firefighter Non-Suppression series:

- Safety Fireworks Supervisor Course
- Vehicle Extrication
- Fire Incident Command series
- Pre-Emergency Planning
- Incident Safety Officer
- Fire Service Instructor - Level I and II
- Live Fire Safety Officer (NFPA 1403)
- Fire Prevention Inspections
- Fire Investigation
- Public Fire and Life Safety Educator
- Public Information Officer
- Fire Department Response to Carbon Monoxide Emergencies
- Risk Management for the Fire Service
- Local Assistant Seminar

Saskatchewan Environment and Resource Management (SERM)

SERM's web site gives the following instructions on how to become a forest firefighter, and outlines the education and training requirements for the role.

> Hiring priority is given to certified firefighters (trained). Information on training opportunities can be obtained by contacting your local SERM office in southern Saskatchewan, or the nearest SERM Fire Management and Forest Protection office in the northern part of the province. Trainees must be a minimum of 16 years of age and be in good physical condition in order to qualify for a four-day Basic Fire Fighting training program. Additional course levels of training are available and courses will be offered on a required basis. To receive more information on forest fire suppression training, please contact your nearest SERM Fire Management and Forest Protection District office. (Saskatchewan Environment and Resource Management, 1998b).

The Wildlands Fire Fighting program is described in the OFC Training System Guide (Office of the Fire Commissioner, 1997, p. 9):

> Fire Departments are faced with fires in forest, brush, crops or grassland as well as in structures. This program is available from Saskatchewan Environment and Resource Management, Forest Fire Management Branch and is designed to teach the firefighter basic skills in fighting Wildlands and urban interface fires and is available for fire departments serving provincial forestry areas. [The Branch] offers a number of training programs in Wildlands and urban interface fire control and fire prevention practices and may be contacted for these courses.

A review of SERM's fire fighting education and training programs for 1998 shows that the department spent $213,500.00 on training, plus another $52,500.00 on development time and educational staff salaries (Saskatchewan Environment and Resource Management, 1999). SERM documents show that the department offers, either directly or through contractual arrangements with provider agencies, the following list of courses and programs:

- Basic Fire Fighting
- Crew Boss
- Sector Boss
- Advanced Fire Behaviour
- Firefighter Supervision
- Aviation Management
- Advanced Aviation Management
- Advanced Passenger Safety
- Heavy Equipment Management
- Hover Exit
- Chainsaw Safety and Operation
- Pump Operation
- Initial Attack Crew Leader
- Effective Presentations
- Aerial Ignition
- Fire Cook

Other short courses taken by SERM employees, but offered by other agencies include:

- Standard First Aid
- Cardio Pulmonary Recusitation
- Workplace Hazardous Goods Information System (WHMIS)
- Transportation of Dangerous Goods

To gain certification through SERM's in-house courses participants must complete the classroom-based requirements plus a specified time of field experience. Individuals who have completed courses from external provider agencies must have a wallet-size certification card signed by a departmental Training Officer. SERM maintains an electronic database of courses and participants.

Saskatchewan Institute of Applied Science and Technology (SIAST)

In 1996, the Prince Albert fire department approached SIAST, Woodland Campus, to deliver training for instructors of firefighters. To accommodate this request SIAST developed a generic train-the-trainer package that can be customized to fit the time availability or training needs of participants. The Woodlands campus has 2-, 4-, and 6-day Train-the-Trainer programs available in distance and face-to-face delivery format for Fire Service Instructor Levels I and II. These programs are based on IFSTA curriculum. While SIAST trains fire instructors, the OFC in Saskatchewan holds jurisdiction to grant IFSAC certification based on NFPA standards. SIAST Woodlands is currently involved in a partnership initiative with the Prince Albert Grand Council and the City of Prince Albert to establish a fire college in the local area. The campus has been also partnered with agencies such as Sask Power, Sask Water, and SERM and regional colleges for the delivery of courses.

Saskatchewan Indian Institute of Technology (SIIT)

SIIT provides basic firefighter training to First Nations firefighters through on-demand and contractual arrangements with trainers. SIIT education and training records listed with INAC for April 1, 1998 – September 30, 1998, show that 140 First Nations firefighters participated in 16 training sessions offered in eight communities, and covering the following NFPA Level One and Level Two modules:

- Portable Extinguishers
- Ventilation
- Water Supply
- Forcible Entry
- Ropes
- Building Construction
- Fire Behaviour
- SCBA
- Wildlands Fire
- Basic Fire Preparation

Other activities included participation in provincial and national fire related activities, basic fire recruiter, and fire prevention educational programs. SIIT's October – December, 1998, quarterly report to INAC, shows that 28 firefighters in four communities were trained in the following modules during the reporting period:

- Fire Behaviour
- SCBA
- Ventilation
- Ladders

A Basic Fire Recruiter program was also undertaken.

Saskatchewan Safety Council

The Saskatchewan Safety Council provides a number of fire-related short courses, primarily in the areas of fire extinguisher use and school bus driver fire safety programs. The Council has a market niche to train approximately 100 people on an annual basis with pipeline companies, some small to medium-sized employers.

Saskatchewan Fire Departments and Associations

There is a pool of courses (e.g. Ventilation, Hoses and Nozzles, Ladders) that are generic to all fire departments in Saskatchewan, and they are usually based on a set of standards such as NFPA standards and involve certification through an agency such as IFSTA. All fire departments use the services of in-house and external consultants and trainers, with volunteer departments tending to train primarily on a weekend basis. Career, composite and many volunteer fire departments in Saskatchewan provide a full range of regularly scheduled in-house education and training programs to members, as well as providing them with advanced, out-of-province training in areas relative to each department's needs. On occasion, volunteer members and instructors also participate in out-of-province activities.

In addition to department-based programs, the associations that represent the various ranks of firefighters promote and provide education and training opportunities for members. The Saskatchewan Volunteer Firefighters Association, for example, organizes provincial training sessions for members during the spring and fall of each year. These sessions are generally delivered by certified fire instructors who come from a variety of backgrounds (e.g. members or supervisors of industrial fire services, sales agents, and full-time fire departments) who volunteer their time and services. Members of the OFC also offer educational sessions around regulatory and public safety and educational issues. These sessions are in addition to the countless others that are delivered on an ongoing basis in individual volunteer fire departments throughout the province.

The most recent education and training records of the SVFFA show that the association sponsored 11 classes in the Fall of 1998, with 155 firefighters being involved in modules covering essential and special training. The latest list of courses offered by the Association include the following:

- Portable extinguishers
- Ventilation
- Flashover
- LPG Emergencies
- Self-Contained Breathing Apparatus (SCBA)
- Pump Test Basics
- Confined Space

- Hoses and nozzles
- Ladders
- Building Construction
- Hazardous Materials
- Fire Behaviour
- Fire Control
- Public Fire Safety Stations – delivered by the OFC
- Public Awareness – delivered by the OFC

The Saskatchewan Association of Fire Chiefs sees a trend developing where departments are moving away from traditional off-the-street hiring and in-house training of recruits toward increased hiring of graduates of post-secondary pre-employment programs. There is also a growing need for certification of all training delivered within the sector. These two trends alone will mean increased demand and access for education and training. Coupled with other sector trends in technology and increasing responsibilities around public safety (e.g. building construction and transportation of hazardous materials), new needs will emerge on an ongoing basis range, thereby creating added demands on the current system. An example of need that is gaining in priority for the SAFC is accessibility to an officer professional development program.

The overarching aim of education and training for all groups is to have members trained to the level where they are ready to challenge the requirements of certification, particularly firefighter level I or II, or fire instructor level I or II. Fire departments, and the associations that represent the various members, advocate the view that access, co-ordination, and certification are needed to ensure that quality training is available across the sector.

Emergency Services Training Institute

As previously noted, the Emergency Services Training Institute of Martensville, Saskatchewan, offers pre-employment training for those wishing to become volunteer or career firefighters. The four-month program offers Level I and Level II firefighter training to NFPA 1001 standards, and IFSAC certification for graduates is conducted by the OFC. In addition, the program includes training:

- which leads to Saskatchewan First Responder certification;
- which leads to First Aid and Cardio-Pulmonary Resuscitation (CPR) certification at the Instructor level;
- in Adult Education techniques;
- in Extrication; and,
- in Customer Service.

The Institute noted that graduates of this program meet the entry standards of the Regina Fire Department, but not the Saskatoon Fire Department (personal communication, June 4, 1998).

Fire Protection and Suppression Equipment Suppliers

Suppliers of fire protection and suppression equipment provide a great deal of training related to the use and maintenance of their products. Levitt-Safety Limited, for example, is a supplier of a wide range of industrial safety products, so providing training in the use of technical equipment is a significant part of the company's operations. The company conducts extensive training for Saskatchewan industry, particularly in the mining sector. Levitt-Safety Limited also provides firefighter training for small municipal fire departments.

Company trainers like those at Levitt-Safety are in an ideal position to witness the impact of technological innovation on training needs; for example, the development of thermal imaging equipment. This equipment enables one to see through smoke, and users require training as the equipment enters the marketplace (G. Linton, personal communication, July 9, 1998). Along with new technology, a widespread example of ongoing sales-related training across the sector is in the use of self-contained breathing apparatus (SCBA).

Canadian Public Institutions - Firefighter Training

Unlike most other provinces, Saskatchewan has no public educational institution that develops, delivers and co-ordinates its own fire/rescue service or other emergency response training programs and services on a province-wide basis. There are a number of province-based providers, but they either fill a market niche or are trying to carve one out. The absence of a provincial training institution, or centralized training authority, means that Saskatchewan residents who aspire to be firefighters, or firefighters who require professional development, typically travel outside the province to get the requisite education and training. The current situation is that there is no co-ordination

of programs and services, and there is no sector-wide record keeping of who has completed what training.

Although there isn't any Saskatchewan public institution that routinely delivers programs developed at other institutions, there are privately owned and out-of-province public educational institutions offering fire service training. Following is a sample of institutions that provide education and training to Saskatchewan's fire/rescue sector.

Dalhousie University, Henson College. Henson College offers two fire service training programs: the Certificate in Fire Service Leadership program, and the Certificate in Fire Service Administration program. The Certificate in Fire Service Leadership program (a successor to the Certificate in Volunteer Fire Service Leadership program) is comprised of three modules and is available through distance delivery. Graduates of this program receive advance standing if they proceed to the longer Certificate in Fire Service Administration program (Dalhousie University, Henson College, 1997b). In turn, graduates of the Certificate in Fire Service Administration program receive advance standing if they choose to enroll in the Business Administration degree program at Dalhousie University or the Vocational-Technical Education degree program offered at the University of Regina (Dalhousie University, Henson College, 1997a). In its section on Certificate Courses for Officers, the OFC's Training System Guide refers to these programs and suggests that, given sufficient enrollment, their face-to-face components could be delivered in Saskatchewan (Office of the Fire Commissioner, 1997, p. 11).

Justice Institute of British Columbia. The Justice Institute of British Columbia (1997) has several divisions, one being the Fire and Safety Training Division which includes the Fire Academy and the Fire & Safety Training Centre. The Division provides fire-related training for the fire service, and for marine and industry clients. Programs offered range from hands on fire fighting to officer training.

Following are some examples of the kind of training and expertise offered by the Division:

- Fire Officer Training
- Firefighter Training
- Executive Development for Fire Officers
- Fire Prevention Inspector Training
- Hazardous Materials Emergency Response
- Live Fire Training
- Industrial Fire Fighting
- Ship Board Fire Fighting
- Recruit Firefighter Training (Pre-employment)
- Confined Space

The Fire Academy has IFSAC accreditation for the following courses: Company Officer, Command Officer, Administration Officer, Training Officer Level I and II, Firefighter Level I and II, and Hazardous Materials, Awareness and Operations. In addition to developing and delivering its own courses, the Fire Academy also brokers fire service programs from Dalhousie University (Dalhousie University, Henson College, 1996).

The Fire Academy had a close relationship with British Columbia's Fire Commissioner:

> (a)s part of its contract with the Fire Commissioner, the Fire Academy provide(s) facilitation and clerical support to the Standards and Curriculum Sub-Committee of the Fire Safety Advisory Council. [In 1994] (t)he Council developed a provincial basic firefighter-training standard for review and comment by all interested parties. (Justice Institute of British Columbia, 1994, p. 8)

By 1995 the link between both organizations was severed and the OFC funding for the Justice Institute was dropped.

Lakeland College (Alberta Fire Training School). Lakeland College recently took over operation of the Alberta Fire Training School (AFTS) located in Vermilion, Alberta. Lakeland College is a jointly funded public institution of the Saskatchewan and Alberta provincial governments with main campuses located in the boundary city of Lloydminster, Saskatchewan/Alberta, and Vermilion, Alberta. Vermilion houses both a trades and technology campus and the Alberta Fire School. The Southern Alberta Institute of Technology is a significant delivery partner of the Fire College, and the college has an arrangement with provincial employers to second fire instructors to the college (Alberta Fire Training School, 1999). The college also has a transfer credit arrangement with Athabasca University for some college and university courses.

According to its 1993 annual report, Saskatchewan's OFC has a quid pro quo arrangement with the college wherein its staff teach periodically at the fire school, and in return, the AFTS waives tuition fees for OFC

staff and selected Saskatchewan firefighters. In 1993, for example, 24 Saskatchewan firefighters attended courses at AFTS (Office of the Fire Commissioner, 1993, p. 3). The student count for 1998/99 show that the school's enrollment was 6019 within the following breakdown of enrollment categories:

• Proboard	211
• IFSAC	604
• Entities or being granted certification to provide training and certify	431
• Local delivered and extension courses	2413
• Industrial	284
• Contracts on site and off site, usually specialized	1051
• Challenge Exams	45
• Municipal fire departments	886
• Emergency Services Technician Program	23
• Special presentations to companies (e.g. extinguishers)	886
Total	**6019**

The AFTS offers a full range of programs and courses to meet the following NFPA requirements:

- NFPA STANDARD 472 - Professional Competence of Responders to Hazardous Materials Incidents;
- NFPA 1001 – Fire Fighter Professional Qualifications
- NFPA 1002 – Fire Department Vehicle Driver/Operator Professional Qualifications;
- NFPA STANDARD 1003 – Airport Fire Fighter Professional Qualifications;
- NFPA STANDARD 1021 - Fire Officer Professional Qualifications;
- NFPA STANDARD 1031 – Professional Qualifications for Fire Inspector;
- NFPA STANDARD 1033 – Professional Qualifications for Fire Investigator;
- NFPA STANDARD 1035 – Professional Qualifications for Public Fire and Life Safety Educator,
- NFPA STANDARD 1041 - Fire Service Instructor Professional Qualifications; and,
- Courses related to Safety Codes Officers in the Fire Discipline.

Additionally, the AFTS offers a variety of safety code and industrial firefighter courses. The College carries accreditation from Proboard and IFSAC, two international accrediting agencies based in the United States. Through the AFTS, and in partnership with the Southern Alberta Institute of Technology, Lakeland College also offers a combined Firefighter and Emergency Medical Services Technician Diploma program (Alberta Fire Training School, 1998).

Lambton College. The Industrial Fire School at Lambton is a division of the College's Centre for Environmental Management and Safety. The fire school, which has been in operation since 1976, provides industrial and municipal fire fighting and incident management training to over 1500 people annually. The school also offers a variety of short courses, which include theory and practical applications in industrial and municipal fire fighting. The school also can develop and deliver customized training (Lambton College, Industrial Fire School, 1998a). The Centre delivers emergency responder and firefighter training programs, so it is not surprising that different programs share common courses. The fire school delivers the following programs:

- Fire Fighting/Emergency Responder Series Courses - four levels;
- NFPA 600 Industrial Fire Brigade Member Certification Courses - two levels; and,
- Municipal Firefighter Training Courses - two levels. (Lambton College, Industrial Fire School, 1998b)

Manitoba Emergency Services College. The Manitoba Emergency Services College (MESC) operates under the mandate of the provincial Office of the Fire Commissioner (OFC). To emphasize a trend toward cooperative emergency service, the OFC changed the name of the Manitoba Fire College to the Manitoba Emergency Services College (Office of the Fire Commissioner, 1996).

Information supplied by the Manitoba Office of Fire Commissioner shows that the college derives its funding through a levy on fire insurance premiums similar to the requirements of the Saskatchewan's Fire Prevention Act. Unlike Saskatchewan's Act, however, the Manitoba Fires Prevention Act, 1998 has a requirement under section 76(1) that the money must be "credited to an account to be known as: 'The Fires Prevention Fund' and the money at credit of the account shall be paid out on the order of the minister, which order shall certify that the expenditure is for the purposes of this Act only" (p. 42). While the

Act sets a maximum levy of 2% levy, the current rate is set at 1.25%, and this year's revenue is approximately $4m. By following standard legislative protocol, the OFC has an option of charging up to 2%. In addition to operating the college from the $4m fund, the OFC provides education and training incentives to the fire/rescue sector and buys education and training materials and equipment (e.g. communications systems, SCBAs complete with compressors and bottles) that are made available to fire departments.

To promote the participation of firefighters in training, the Manitoba OFC has a system in place to provide incentives to Mutual Aid Districts. A district receives $250.000 for each member who completes an Emergency Medical Responder program, and $100.00 is provided for members completing Level I or Level II Firefighter certification. The OFC also provides incentives of $100.00 per participant for other courses sanctioned by a Mutual Aid District such as water rescue, Farm Accident Rescue, Advanced First Aid, Vehicle Extrication, Pump Operations, and others. A Mutual Aid District normally comprises a number of fire departments, EMS operations, and other providers within a specified geographic region. Training Districts are set up in areas where the communities are spread too far apart to form a Mutual Aid District.

The MESC's training programs are delivered either at the campus in Brandon or regionally by qualified instructors. The courses range from one day to one week in duration, and one of the major programs offered at the Brandon facility is a 24-week pre-employment Public Fire Protection Program. Individuals from across Canada apply to attend this program which prepares an individual for a career in the Fire Service. Currently there is an 80% placement rate for graduates within three years of graduation (Office of the Fire Commissioner, 1998). Some Saskatchewan residents enroll in this pre-employment program, including members of First Nations fire departments and recent recruits of the Regina Fire Department.

Because it operates on a requirement that it be self-sufficient, the college sustains itself by marketing programs and services to out-of-province fire departments and industry. Within Manitoba the college also recovers some of its costs through the provision of training to industry and through an inspection fee of $250.00 per inspection. The main requirement for inspection services is when buildings are being sold or transferred to new owners.

The staff person assigned full-time to the College is a Manager who is responsible for the operation of the facility, development and scheduling of the yearly training programs, maintenance of the student application process and records management, and supervising staff assigned to teach programs in the facility. Staff members are seconded to teach in the facility on a rotational basis as part of their job functions with the Manitoba OFC (Office of the Fire Commissioner, 1998). Although the following MESC programs meet national and international standards, custom-designed programs are also available.

- Fire Fighting Practices Level I (NFPA 1001)
- Fire Fighting Practices Level II (NFPA 1001)
- Fire Service Instructor Level I (NFPA 1041)
- Fire Service Instructor Level II
- Vehicle Extrication Instructor
- Water Rescue Instructor
- Farm Accident Rescue Instructor
- Public Fire Safety Education Seminar
- Critical Incident Stress Debriefing Basic
- Youth Fire Stop Seminar
- Fire Prevention & Inspection Level I
- Fire Prevention & Inspection Level II
- Fire Prevention & Inspection Level III
- Fire Protection & Emergency Planning
- Vehicle Extrication Seminar
- Water Rescue Seminar
- Ice Rescue Seminar
- Farm Accident Rescue Seminar
- Aircraft Crash & Rescue Seminar
- Hazardous Materials - Awareness (NFPA 472)
- Hazardous Materials - Operations (NFPA 472)
- Pump Operations (NFPA (1002)
- Emergency Vehicle Operations (NFPA 1002)
- Fire Service Hydraulics (NFPA 1002)
- Fire Cause Determination Level I
- Fire Cause Determination Level II
- Fire Cause Determination Level III
- Fire Ground Management Seminar
- The Inspector and the House
- The Building Code, Part 9: The House
- An Introduction to Plumbing Inspections

- The Building Code, Part 9: Technical Requirements
- The Building Code, Part 3 (Part A)
- The Building Code, Part 3 (Part B)
- Municipal Bylaw Administration
- Wood Heat Safety Seminar
- Ground Search and Rescue
- Industrial Fire Safety (NFPA 600) (Manitoba Emergency Services College, 1998)

Canadian Public Institutions - Fire Protection Engineering and Fire Science

Seneca College. Ontario's Seneca College offers a two-year Fire Protection Engineering Technician program and a three-year Fire Protection Technologist Engineering program, with each program having a common first year. After successful completion of the first year, a student enrolled in the Technician program may elect to transfer to the Technologist program.

Major areas of study in the Technician program include: the design and installation of fire protection systems; leading edge computer software systems; sprinkler and alarm processes; and, optional training in fire fighting and Wildlands fire suppression (Seneca College, 1998a).

Major areas of study in the Technologist, in addition to studies in fire dynamics, properties and hazards, include advanced studies in design and installation of fire protection systems; leading edge computer software systems; sprinkler and alarm development, and, optional training in fire fighting and wildlands fire suppression. Qualifying students in the Technologist program have a cooperative education option described as a summer work placement after the first year of study (Seneca College, 1998b).

The Seneca programs have a Saskatchewan connection. Some years ago Seneca College officials met with representatives from the University of Saskatchewan's College of Engineering and proposed that they deliver the Seneca programs. The University of Saskatchewan declined the offer (Office of the Fire Commissioner, personal communication, April 13, 1998).

University of New Brunswick. Offerings at this university are described as follows:

> The [Fire Science]Centre [at the University of New Brunswick] provides a focus for interdisciplinary research in fire and heat transfer related subjects. . . . The Centre conducts research in the areas of natural and accidental fires; educates graduate and undergraduate students in fire science; cooperates with government agencies and industry to ensure technology transfer and application of fire science research information. The Centre also undertakes research projects in industrial explosions and their prevention and forest, building and other fires. . . .
>
> The Fire Science Centre was established in 1967 as an interdisciplinary program that includes any individual or group interested in fire science. At present departments associated include Biology, Chemical Engineering, Chemistry, Civil Engineering, Forest Engineering, Forest Resources, Mechanical Engineering and Surveying Engineering. . . . The mandates of the Centre are to support graduate students in fire science, to undertake research that will lead to furthering knowledge in the field of fire science and to play a consulting role with government and industry. . . . [F]acilities include a temperature and humidity controlled laboratory which contains a wind tunnel, apparatus for conducting ignition tests, fuel storage facilities, a cylindrical test furnace with numerous specially designed probes, a cold model chamber for studying mixing patters, and a pressure liquefied tank simulator (University of New Brunswick, 1995)

The Fire Science Centre works through departmental graduate programs to support research in the discipline. Under the auspices of the Centre, graduate work is carried out leading to MScE and PhD degrees in Chemical, Civil, Mechanical, and Survey Engineering, MSc and PhD programs in Biology, and MScF, MF, and PhD degrees in Forestry. Individuals with other backgrounds can register for a special course of study leading to a graduate degree in Science or Engineering.

American Public Institutions

Montana State University. As listed on their web site, training for fire fighting is supported at the Montana State University, and the Montana Fire Services Training School serves as its extension arm. The Training School is an educational outreach program of the University's Extension Service.

Objectives of FSTS:

- Provide fire service personnel with professional training
- Identify new methods of fire prevention and suppression and disseminate

- information about them
- Provide a resource center for use by local fire services
- Provide testing and certification for personnel and apparatus
- Coordinate fire services training in the state.

Scope of Services and Philosophy:

The FSTS serves all of Montana's fire departments, companies and districts. This audience consists of an estimated 9,600 members in 355 organizations, 95% of which are volunteers. The FSTS also develops and operates programs which make local governments effective in their mission of providing quality fire and rescue service to the public. FSTS supports and promotes:

(a) "standard of care" operations,

(b) self-sustained training programs within local organizations,

(c) sharing of resources between organizations, and

(d) individual growth of emergency service personnel through training.

Facilities:

Offices of the FSTS are co-located with the MSU College of Technology-Great Falls, Great Falls, Montana. The FSTS operates a mobile smoke maze (tractor and trailer), mobile command vehicle, and a resource center/loaning library. There are no dedicated fire training structures owned by the state.

Advisory Council:

The FSTS works closely with its Advisory Council which is appointed by the Board of Regents. The Council is very active in providing direction for the School's programs, and its members are also involved in leadership roles with other organizations (Montana State University, Extension Services, 1998). The FSTS is currently engaged in the following activities.

Special Assistance:

The FSTS provides special educational programs and services to assist local fire organizations with training, planning, technical and management problems. Research is conducted by staff members or referred to subject matter experts with which FSTS maintains contact. Services have ranged from conducting a performance audit of a local fire department to testing apparatus.

Curriculum Development:

The FSTS has developed an innovative approach for training firefighters which has recently received national acclaim. The program was especially designed to meet the needs of Montana's fire services, and it is gaining popularity . Additional levels are under development, as well as revisions to existing units.

Training Delivery:

The FSTS delivered 16,458.5 contact hours of instruction which was received by 1,774 students in fiscal year 96. Operations staff travels more than 90,000 miles per year to provide training in communities all over the state.

Emergency Services Library:

The FSTS maintains an extensive library of fire and EMS related materials, all of which are available on a loan basis to local fire services. Materials include transparencies, course guides, videotapes, lesson plans, hardware, instructor kits, periodicals, reference books, catalogs and technical reports. Over two thousand loans are made annually, and an annual membership fee is charged to help fund this service.

Professional Certification:

The FSTS offers a testing program which recognizes demonstrated professional competence. Fire service personnel are tested against standards for various levels and specialties and recognized with a certificate for success. The program is accredited by the International Fire Service Accreditation Congress and the National Board for Fire Service Professional Qualifications.

Mobile Training Labs:

The FSTS operates two mobile training laboratories. A smoke maze has been constructed in a large trailer and is used by field instructors to train firefighters in the use of mask and rescue techniques. A residential sprinkler trailer is used to demonstrate the effectiveness of these life safety devices during real fires.

Coaches Network:

The FSTS identifies and trains experienced firefighters to be coaches. These individuals then train personnel within their own or other departments. Coaches make major contributions to the development of training materials and provide instruction at agency sponsored courses.

Manual Program:

The FSTS develops examinations on training materials published by the International Fire Services Training Association and other nationally recognized publishers. These testing materials are routinely revised and used by many career fire departments in Montana.

National Fire Academy/FSTS Partnership:

The FSTS operates in partnership with the National Fire Academy to bring NFA Courses to Montana. Each year, nine courses are delivered utilizing NFA instructors from all over the United States (Montana State University, Extension Services, 1998). The FSTS has developed the following strategic plan.

Strategic Goals:

- Support the personal well being and growth of our members and customers.
- Support the development of quality local trainers and programs.
- Develop valid, relevant curricula that will meet the needs of local fire services, organizations and individuals.
- Promote leadership abilities in our customers and members which produce sustainable fire service organizations.
- Review this plan annually.

Our Delivery System:

- Provide communications mediums. [Examples include] (p)ersonal contacts, bulletin boards, newsletter, presentations, displays, reconnaissance, publications.
- Provide content and processes which are safe and methods that are effective and provide for safety.
- Teach skills and conduct testing in context. [That is,] (r)eproduce the operational environment during training and testing.
- Use concepts of coaching to teach skills.
- [Provide]Officer certification, [that is,] (t)hird party recognition of achievement.
- Train trainers.
- Facilitate interaction between fire service organizations. [Examples include] (r)ide-alongs, shared training resources. (Montana State University, Extension Services, 1998)

The Montana State University has been overviewed at some length because the Montana approach to training firefighters appears as a best fit for Saskatchewan. Like the regional colleges model used in the province, Montana's training school has no fixed facilities, mobile labs are used, the institution serves a predominantly volunteer fire fighting force, the state's demography is similar to Saskatchewan, and MSU offers an integrated/comprehensive service from one outreach agency. While many of today's brick-and-mortar training institutions are scrambling to recruit sufficient numbers of trainees, the Montana school-without-walls model appears to be effective and appropriate for meeting the needs of that state.

Oklahoma State University. Oklahoma State University is a venerated leader in the field of training, often referred to as "the 'West Point' of the fire service" (Oklahoma State University, 1998c). The School of Fire Protection and Safety is under the College of Engineering, Architecture, and Technology, and the fire protection and safety engineering technology program began in 1937. Since the program's onset, the demand by business and industry for loss control specialists has resulted in the evolution of the program into one that now also places emphasis upon industrial fire protection, safety, and occupational health in addition to the fire service. The four-year program is fully accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, and graduates exit with a Bachelor of Science in Engineering Technology degree in fire protection and safety.

> The School of Fire Protection and Safety has four full-time faculty members as well as a number of adjunct faculty members. . . . The fire protection and safety program is fortunate to have the International Fire Service Training Association/Fire Protection Publications also on the campus of Oklahoma State University. The IFSTA/FPP is the world's largest distributor of fire fighting training manuals. (Oklahoma State University, 1998b)

OSU Fire Service Training (FST) offers a variety of training programs and delivery modes for emergency responders who are publicly or privately employed. OSU notes that most training programs are offered to Oklahoma fire department personnel for little or no cost. Other participants in the emergency service within and outside Oklahoma may also receive high quality training. Resident Training courses are scheduled throughout the year at the Stillwater training facility and other OSU campus locations. Courses include basic and advance fire fighting skills, technical rescue, hazardous materials, fire inspection, fire officer, instructor training, leadership and management courses, plus a range of specialized and advanced topics for emergency responders.

Statewide delivery of courses are scheduled and based on the expressed training needs of the fire departments and communities around the state. FST uses qualified adjunct instructors to conduct field training, and to facilitate courses meeting NFPA standards and certification objectives. Instructor Training includes fire department instructional techniques, course development methodologies, and teaching strategies that help fire service instructors meet the minimum qualifications of NFPA 1041. FST also supports Fire Service Instructors of Oklahoma (FSIO) through the delivery of professional instructor development programs. Instructors who are qualified by FST to train other instructors teach train-the-Trainer courses. Using standardized methods and materials, trained instructors return to their local jurisdictions with complete course guides and deliver training to department personnel. In this way, Fire Service Training organizes an expanded cadre of instructors are prepared to deliver needed training to local constituencies around the state (Oklahoma State University, 1998a).

Fire/Rescue Sector Human Resource Occupational Profile

Profile and General Description of Saskatchewan's Municipal Firefighters and Agencies

The following occupational profile of Saskatchewan's firefighters is based on information published by the federal government, chiefly Human Resources Development Canada, whose reports derive from census data supplied by Statistics Canada. Therefore, the occupational classifications, industrial classifications and geographic areas have been defined by the federal government for its use, rather than for the purposes of this study. Nevertheless, this information enables the compilation of a general profile of the province's career firefighters, despite errors, omissions and inconsistencies in some of the used data. Detailed statistics and descriptions are located in the Index of Tables and Figures.

Number and Earnings of Firefighters. Statistics Canada 1996 Census data show that there were 880 paid full- and part-time firefighters in the province in 1995, 665 of whom worked full-time and year round. The 1996 census found that national average income for all firefighters in Canada was $48,138, while the average for Saskatchewan was $38,576. Compared to 1990 statistics, there were slightly fewer firefighters in 1995, but a higher proportion worked full-time, which is reflected in the higher average income for all firefighters. Over the five-year period, however, the average income for full time firefighters declined slightly.

Data from the 1996 census show the average income for male firefighters in Canada to be $39,252, and no average was reported for females. Statistics Canada offered the opinion that the lack of data on females is likely attributable to the low number of female firefighters to provide an accurate picture of the current situation. For chiefs and officers, the average income was $51,723.

Age, gender, and Census Metropolitan Area (CMA). The 1996 census data shows that there were 845 career firefighters and 50 chiefs and officers in Saskatchewan. Of this total, 580 worked in the Regina and Saskatoon census areas which included each city plus the surrounding area. Statistics show that ninety-seven percent of the firefighters and all of the chiefs and officers were male. A telephone survey to the province's four largest fire departments during the time of this study revealed there was a total of five female firefighters in these departments. The SVFFA does not keep records of gender in its membership, but the number of females is known to be very, very low, and those who do belong to fire departments are primarily in the first responder grouping. As reported in the national survey, the SVFFA noted that a significant number of females who are connected to fire departments are involved in auxiliary services such as fund raising activities.

Based on a 1991 total of 735 firefighters, 445 were between the ages of 25 and 44, and 230 were between 45 and 64. Only 50 firefighters were under 25 years of age, and just ten were 65 or older (Human Resources Development Canada, 1998i). For chiefs and officers, 30 of the 40 reported in 1991 were between 45 and 64 years of age. The remaining ten were between 25 and 44 years old (Human Resources Development Canada, 1998h).

Occupational industries. Census data from 1996 show that all but ten of the 850 firefighters, chiefs and officers worked in the public sector. The comparative 1991 data is similar, but ten are reported as working in each of the following industrial categories: logging and forestry, transportation and storage, wholesale trade, and education.

For 1991, census reports show the sub-sectors of public administration in which firefighters were employed: 77.5% in local government; 8.8% in provincial government; 2.0% in the military; 1.3% in air transport; and 1.3% in other federal government agencies. In the sub-sector local government, a similar pattern held for chiefs and officers: 71.4% of senior people were municipal employees (Human Resources Development Canada, 1998i). While the figures are ambiguous, it is understood that the percentages reported is based on all firefighters, not just those employed in public administration.

Nature of the work. Firefighters are employed by municipal, provincial and federal governments, and by large industrial establishments that have internal fire-fighting services to carry out fire fighting and fire prevention activities, and assist in other emergencies. Personal qualities needed for firefighters are personal alertness, courage and good judgment. Because firefighters eat, sleep and work closely together under stressful conditions, they also need to be able to communicate and get along well with others. Technological changes are affecting the equipment and methods used to fight fires; therefore, fire fighting requires workers who have more capabilities in more areas than has been the case in the past (Human Resources Development Canada, 1998i).

According to job descriptions provided by Human Resources Development Canada (1988h), Fire Chiefs and Senior Fire fighting Officers plan, organize, direct and control firefighting operations and fire prevention activities in fire departments. Fire Chiefs and senior Firefighting Officers are employed by municipal and federal governments, and by industrial establishments with firefighting services.

Main duties. For firefighters, the main duties are:

- Respond to fire alarms and other calls for assistance, such as automobile and industrial accidents;
- Rescue victims from burning buildings and accident sites;
- Control and extinguish fires using manual and power equipment; such as axes, water hoses, aerial ladders and hydraulic equipment;
- Administer first-aid and other assistance;
- Ensure proper operation and maintenance of fire-fighting equipment;
- Inform and educate the public about fire prevention;
- Train to maintain high level of physical fitness; and,
- May supervise and co-ordinate the work of other firefighters. (Human Resources Development Canada, 1998i)

For chiefs and senior officers, the main duties are as follows:

- Develop and implement policies and procedures for the operation of a municipal fire department, a district fire region, or an industrial fire-fighting service;
- Plan, direct and co-ordinate fire-fighting strategies for fire departments;
- Direct the training of personnel in fire-fighting methods;
- Develop and oversee the implementation of fire prevention campaigns; and,
- Represent the fire department in communications with government, the media and the public (Human Resources Development Canada, 1998h).

It is noted that the foregoing duties of firefighters is but an overview as firefighters in all ranks have additional duties such as promoting and smoke detector programs, handling hazardous materials, responding to calls for emergency services and technical rescue, providing public education programs, conducting inspection services, and more.

Employment requirements. For firefighters, employment requires the completion of secondary school, and the completion of a college program in fire protection technology or a related field may also be required. Applicants who meet the physical agility, strength, fitness and vision requirements are provided with a course in municipal fire fighting. In some cases, experience as a volunteer firefighter may be required, and several years of experience are required for senior firefighters, such as lieutenants and captains (Human Resources Development Canada, 1998i).

For chiefs and senior officers, employment requirements also include the completion of secondary school. In addition, completion of a provincial or municipal firefighters training course, and a minimum of ten years of experience as a firefighter, is usually required before becoming eligible for a senior officer position (Human Resources Development Canada, 1998h).

Employment trends and outlook. "Employment levels can be influenced by directions in government spending, but for the most part, are insulated from economic swings" (Human Resources Development Canada, 1998i). Job Futures, an HRDC program which predicts employment trends for a wide variety of occupations, combines firefighters and police officers in a single category, and has this to say about future employment prospects:

> Current labour market conditions for new entrants in these occupations are good. Labour market conditions for new entrants will remain good through 2001. Continuing cutbacks in the public sector may decrease demand for police officers and firefighters. Public demands for increased protective service may limit cutbacks in areas, however. Most of the increase in labour requirements through 2001 for these occupations will occur in local and federal public administration.
>
> Job Futures rates job prospects as "good" for the five-year period 1996 to 2001. (Human Resources Development Canada, 1998a).

Terms and conditions of employment for firefighters. A typical working schedule rotates every sixteen weeks and involves spending an agreed upon number of consecutive days and nights stationed in a fire hall, followed by a fixed number of days off. Many firefighters work a 10-hour day shift and a 14-hour night shift for an average of 42 hours per week. Fire fighting is a potentially dangerous occupation because of the exposure to risk of burns, toxic fumes, chemicals, cold, high heat, falling building materials, falling from ladders, and injury from use of powerful equipment. Muscle strains from lifting in excess of 25 kg can occur.

People in this occupation have experienced higher than usual incidences of heart disease and lung ailments, although more modern safety practices are expected to reduce this incidence (Human Resources Development Canada, 1998i). Provincial legislation plays a role in determining conditions of employment for firefighters, as well as the collective bargaining process.

Inservice training. Upon obtaining employment as a Firefighter, an individual will usually receive recruit training, followed by a probationary period that lasts for one year. Although training for firefighters is a continuous process, and often continues through the firefighter's work life, after four years they are known as first-class firefighters. Senior officer positions require a minimum number of years experience as a firefighter (e.g. ten), after which they are eligible to participate in an Officer Training Program (OTP). Promotion to Lieutenant and Captain is based on seniority and qualifications and, in some instances, senior officers must have successfully completed an officer training program.

To obtain the rank of Chief Officer, some requirements are: a college diploma or university degree in Administration; completion of a Fire Protection Engineering Technician/Technology program (available out-of-province); Inter-city Management courses; and, Officer experience. Certificate, diploma, undergraduate and graduate degree programs in Administration and Commerce are available at both the University of Regina and University of Saskatoon. Various Indian Business Management and Administration courses are also available through the SIFC. The University of Regina and the Saskatchewan Indian Institute of Technology offer co-op work/study programs in Administration/Business (Human Resources Development Canada, 1998h). In addition, the Bachelor of Vocational/Technical Education degree from the University of Regina, in which members of Regina fire service's training unit are currently enrolled, is also available.

Education and Training in Career and Composite Fire Departments

The Regina Fire Department serves to profile the setup of a typical career fire department having a unionized workforce. While the member profile and level and types of activities vary from department to department in Saskatchewan, the Regina operation serves to illustrate the types of education and training delivered in a career fire department.

Firefighter Association Perspective. All firefighters in the Regina Fire Department within the last 10 years have a firefighter designation, at either Level 1 or Level 2. All 1999 hires of the Regina Fire Department, for example, were graduates of pre-employment training programs at a recognized training institute. Whereas untrained recruits require about ten weeks of initial training, fire school graduates require just three weeks of initial skills assessment and orientation which concentrates mainly on local standard operating procedures and operation of local equipment. Following graduation from an institute the OFC conducts a assessment and certifies new firefighters

The firefighters' union views human resource development in the context of labor relations and values seniority as an overriding factor in promotions, while management proposes that competence replace seniority as the overriding consideration for continuing employment and promotions. The union views competency as an important factor for all fire service positions; however, given the trend to use both volunteer and career firefighters to staff fire services in other jurisdictions, particularly in the United States, the union must safeguard the jobs and future of its members. On that basis alone, seniority prevails as the overarching consideration for promotion. Management, on the other hand, must seek to provide the most effective and efficient public service at the lowest cost; and, working with the union has been, and continues to be, part of that process.

Two past joint initiatives of union and management in the fire service reflect the interest of union and management to develop a set of standards as benchmarks for hiring and promotion. The Saskatchewan Fire Chiefs Association and the Saskatchewan Professional Firefighters Association, for example, attempted to develop a set of standard qualifications for firefighters to establish benchmarks for entry-level positions in all departments. That initiative soon broke down because municipal councils were concerned about the implications of change for municipal budgets and the conditions of employment that would apply in composite departments. In a second initiative, a union-management committee of the Regina Fire Department (RFD) engaged a consultant to develop competency profiles--also referred to as templates--for the various positions within the Department. This project is ongoing and the profiles are being used to identify training needs for departmental personnel. The Promotional Policy Board has been meeting regularly over the last year and have achieved a joint consensus that the RFD will be using NFPA standards as a target for promotions. Meetings to come will explore timeframes for the implementation and delivery of training.

Training division. Education and training in the Regina fire department is carried out by members of a Training Division, as well as shift officers and their crews. The Training Division has five training officers who provide basic and advanced training to personnel on floor, and serve as facilitators for departmental trainers. There are also four shift trainers, Lieutenants or Captains, who have specific assignments. Special operations training is carried out by platoon trainers who are firefighters on the floor (e.g. technical rescue). Company officers also provide skill maintenance training at the basic levels (e.g. fire control, nozzle training). Overall, the Training Division and floor trainers cover the full spectrum of training required in the operation of a city-based fire department. Activities range from public education programs and services, to basic level and officer training, skill maintenance, SCBA, fire control, hazardous materials, vehicle extrication, flashover, and many others.

Office of the Fire Commissioner

The head office of the OFC is in Regina and there is a branch office in Saskatoon. The Regina office has five Fire Prevention Officers covering southern Saskatchewan, while the Saskatoon office has five Fire Prevention Officers covering the northern part of the province.

The 1999 staffing complement in the Office of Fire Commissioner consists of 13 full-time and one part-time staff members. Members include the Fire Commissioner, two Fire Prevention Officer supervisors, eight Fire Prevention Officers for delivery of programs to regions, and three administrative support staff.

Saskatchewan Environment and Resource Management

SERM's Fire Management and Forest Protection Branch (FMFPB) in Prince Albert employs 45 people on a full-time basis, though not all are firefighters. The Branch's operation includes the Provincial Equipment Depot and Radio Communications Unit, and its Northern Air Operations at La Ronge. Most of the 35 employees in La Ronge are maintenance and trades people, while pilots are hired separately under contract. As an outcome of heavy forest devastation by fire in 1994-1995, the provincial government contracted Smith, Goodman, and Jeffrey (1996) to carry out an extensive review of SERM's northern operations. Given the scope of the study and its implications for SERM as a firefighting and education and training provider, following is an overview of the reports statistics and findings. Where deemed necessary, the 1995 data is supported by more recent data.

SERM's regional and district forest fire management is handled largely through seasonal employees. In 1995, 421 seasonal positions located in 35 communities were included in the Department's fixed budget, and

these 421 positions equated to 165.9 full-time equivalencies (FTEs). Of these positions, 281 were Forest Protection Workers assigned to initial attack operations, and the support and service of fire suppression operations. The remaining one-third of the seasonal workers was involved in a variety of support positions not assigned to fire fighting. The 1995 payroll for this operation amounted to $4.6 million. In this area in 1998, SERM had 392 seasonal fire fighters in 35 communities and a budget of $7.9m.

In 1995, a five-year agreement was struck between the government and First Nations, most of who were under the jurisdiction of either the Prince Albert or Meadow Lake Tribal Councils. Under the terms of agreement, First Nations work crews supply fire fighting services to the province. In 1995, 177 people were employed for a minimum of 20 weeks on 31 crews at a cost of $700,000. 1998 data for the First Nations Agreement show the same number of firefighters were employed in 29 crews for a minimum 20 weeks in the south and 16 weeks in the north. The budget for 1998 was $512,000.00.

Through the Smith, Goodman, and Jeffrey (1996) study, First Nations became aware of their desire to be recognized as having an interest in the forest areas beyond pure commercial interests. More specifically, the First Nations people expressed a strong desire for increased involvement in:

- training opportunities;
- fire prevention;
- initial attack;
- provision of First Nations fire crews;
- delivery of fire management services; and
- staffing of the fire management program including management roles. (pp. 32-33)

The consultants endorsed this position.

To promote the development of First Nations firefighters, the Northern Works Crews Program was established as a social assistance program for non-status Indians who work in fire crews on a demand basis and in a support role to fire operations. Otherwise, the crews engage in a variety of community projects. A total of 96 firefighters were employed in 11 northern locations in 1995, and program expenditures exceeded $380,000. In 1998, the program had 90 people working in 12 crews and a budget of $406,000.00

Beyond the fixed budget for fire management, a large number of emergency firefighters and support personnel were hired throughout the 1995 fire season. At peak activity, 3100 emergency firefighters were deployed, the majority of whom were northern residents. Most of their involvement was on sustained action of the several large fires that burned across the North that year. The payroll for the emergency workers exceeded $12.4 million that year.

Like many public agencies in today's fiscally-driven environment, SERM's preferred direction would be to offload some of its responsibility for fire management delivery, and resourcing to stakeholders, (e.g., the beneficiaries of fire suppression programs). In addition to First Nation and non-First nation residents, stakeholders include the forest industry, mining industry, leaseholders, outfitters, lodge owners and trappers.

Mining

According to the Saskatchewan Mining Association Inc., Saskatchewan mining companies have approximately 500 trained emergency response people, about 200 of whom participate in various Mine Rescue, Fire Fighting and First Aid competitions each year (1997b). These responders are employed in other capacities in mines (e.g. mechanics, miners), but volunteer to serve on emergency response teams (Podurgial, 1998, p. G-4).

As fire is the most frequent emergency in mines (Podurgial, 1998, p. G-4), Saskatchewan's mining companies have an emergency response team at each mine site. These emergency response teams typically consist of six persons, and may assist in any type of emergency, whether in the mine or in the community. Each mine conducts its own training, with much of the basic training being provided by equipment suppliers like Levitt-Safety Ltd. (J. Samenook, personal communication, July 10, 1998). Some of the firefighter training meets NFPA standards, but generally speaking, emergency response training is more condensed and less detailed than the training provided in the NFPA Firefighter, Level 1 program (J. Samenook, personal communication, July, 10, 1999).

Certification and Professional Designations in Saskatchewan

Certification

The introduction to the Training System Guide describes professional certification as follows:

> The Office of the Fire Commissioner also has the responsibility of establishing training standards and is the provincial agency that may certify firefighter training. The Office currently recognizes the National Fire Protection Association (NFPA) Standards for professional qualifications and all programs offered by, or through the Office of the Fire Commissioner meet, in whole or in part, NFPA Standards. While not all programs are certified, it is intended to expand the recognition of firefighter training in the province and eventually gain certification for all programs through the International Fire Service Accreditation Congress (IFSAC) and/or the National Board on Fire Service Professional Qualifications (NPQS) (Office of the Fire Commissioner, 1997, p. 1).
>
> Certification is offered at two levels:
>
> The first level is provincial recognition of training and a certificate of achievement may be obtained from the Office of the Fire Commissioner through a recognized Fire Service Instructor. Certificates of achievement are issued for full programs only. . . . The second level is Nationally and Internationally recognized and is obtained through the Office of the Fire Commissioner. International Certification can be gained through regional testing programs conducted by the Office of the Fire Commissioner. Certification programs will be conducted through procedures established by the accreditation agency and the Office of the Fire Commissioner (Office of the Fire Commissioner, 1997, p. 18).

It is possible for individuals from outside the province to have their certification recognized in Saskatchewan:

> Students from other jurisdictions holding certification by the same or similar certification agencies for the same standard shall be recognized as meeting certification requirements for Saskatchewan. Where certification is held, but not by the same or a similar agency, the student may submit training records to the Office of the Fire Commissioner for review. Where warranted, an equivalent level of certification may be awarded to the student based on the review conducted by the Office of the Fire Commissioner (Office of the Fire Commissioner, 1997, Unit IV, p. 21)

Those who wish to upgrade their existing certification may do so as follows:

> [An individual may] . . . challenge the new certification by completing a written and practical evaluation based on the new Standard. Arrangements for the challenge may be made through the Coordinator of Training with the Office of the Fire Commissioner. [Individuals] . . . must submit a letter of request to challenge along with a copy of their previous certificate of achievement (Office of the Fire Commissioner, 1997, p. 21).

Provincial Professional Designations

According to the OFC, some professional designations can be earned in Saskatchewan at present. These designations are grouped below by training series.

Firefighter Basic Skills.

- Firefighter
- Apparatus Driver Operator

Firefighter Suppression.

- Awareness Level Dangerous Goods Response
- Operational Level Dangerous Goods Response
- Technician Level Dangerous Goods Response

Fire Department Officer.

- Officer

Firefighter Non-Suppression.

- Incident Safety Officer
- Fire Service Instructor
- Fire Prevention Inspector
- Fire Investigator
- Public Fire and Life Safety Educator
- Public Information Officer

National Professional Designations

In 1997, the Canadian Association of Fire Chiefs, in conjunction with its partners the Provincial Fire Chiefs Association, The Canadian Council of Fire Marshals and Fire Commissioners, the Federation of Canadian Municipalities, and the Canadian Association of Municipal Administrators, introduced a new dynamic to Fire Service leadership: the Canadian Fire Service Professional Designation Program. Canadian Fire Officers, who have demonstrated their

competence through education, professionalism and experience, will receive a professional designation from a national Professional Designation Council. This designation program is similar to that available to other professionals such as Municipal Planners, Human Resource Professionals and the British Fire Service.

The development of the Canadian Association of Fire Chiefs (CAFC) Fire Service Professional Designation Program got underway in 1990 when a one-day workshop was held at the CAFC's Annual Meeting in Calgary. A task force was struck following the workshop and a report was generated. Dr. John Benoit of Dalhousie University was contracted to provide a more in-depth report on the process. One of Dr. Benoit's keystone proposals was that the Ontario Association of Fire Chief's Chief Officer Standard be used as the educational standard. This was the only known standard in North America that had been validated against actual job requirements by both Fire Service professionals and Senior Municipal Administrators.

Following negotiations with the OAFC, Karen Booth-Moyle, an adult education professional involved in the development of the Ontario Fire Service Training Standard, was contracted by the CAFC. An interim Professional Designation Council was established to move the Fire Service Professional Designation process to completion in 1997. At the CAFC's Annual Meeting in Saint John, New Brunswick, planned for early August of this year [1997], the Canadian Fire Service Professional Designation Program will receive its final approval from the CAFC membership, and implementation will begin shortly thereafter (B. Hewitt, 1997). At the time of this study this initiative was still in progress and the CAFC was exploring the possibility of linking into an international fire chiefs network that has a similar designation in place.

Section Summary

Saskatchewan's Fire/Rescue Service Sector is a complex sector that provides services in every community, home, worksite and region in Saskatchewan. The sector is comprised of federal and provincial agencies; industry fire/rescue teams; career, composite and volunteer fire departments and firefighters; and, in-province and pout-of-province providers of education and training providers. The industry is closely regulated by government and external agencies and by professional associations that guide the professional development of members. The operational side of the sector provides fire protection, suppression, rescue, and educational services, while the regulatory side provides compulsory adherence, inspection, and certification services. In the provision of all forms of services, the sector's primary aim lies the education of Saskatchewan residents and in the protection of their homes, communities, workplaces, forests, wildlands and grasslands. To meet its mandate, the sector requires tens of millions of dollars in annual expenditures on the purchase and maintenance of equipment, and on the education and training of members to use the technology.

Members of the fire/rescue sector enroll in a wide range of education and training programs delivered by in-province and out-of province providers. Out-of province providers include universities, colleges, training firms, and private consultants. In-province providers include the training divisions of fire departments, equipment sales agents, industry trainers, private consultants, and government agencies. To date, Saskatchewan's current and aspiring firefighters and industry have availed of the programs and services provided in our neighbouring provinces of Manitoba and Alberta. There have been several attempts to establish regional fire colleges in Saskatchewan, with the most recent being the Prince Albert Grand Council's establishment of a training arm for forest firefighting and the setting up of a private institute in Martensville to deliver firefighting training. A partnership initiative has also been revived to establish a fire college in the Prince Albert area.

While Saskatchewan set out to establish a Principal of Training office in the mid-1980s, the duties of position were merged with those of Fire Commissioner; therefore, the province never established an agency responsible for the development, delivery and certification of firefighter education and training to the sector. The result is the delivery of programs and services is uncoordinated and, outside of records kept by the OFC, there is little tracking of who completes or delivers what courses or programs. For a time, the OFC was provided with adequate funding and a mandate to deliver education and training programs throughout the province. This capacity effectively ended in 1996 with the abolishment of all Training Officer positions in the OFC, and the office now serves largely as a regulatory and certifying agency.

The province's Fire/Rescue Service Sector developed at a steady pace over the past 100 years through a

series of legislative acts and the establishment of national, provincial and sector associations and agencies that helped guide the development of its education and training programs. A question put to participants in this study was: What should the future delivery of education and training programs and services look like in Saskatchewan as we move into the next century? Part II of this report, entitled "Findings and Recommendations", provides an overview of responses to the research questions along with findings and recommendations.

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Appendix A: Steering Committee

Kevin Bates, SaskFerco (Belle Plaine)

Duncan Campbell, Saskatchewan Environment and Resource Management (Prince Albert)

Ron Carlson, Communications, Energy and Paperworkers Union of Canada (Regina)

Gladys Hill, Job Start-Future Skills, Saskatchewan Post-Secondary Education and Skills Training (Regina) and ex-officio member of all working groups

Gerry Huget, Saskatchewan Professional Firefighters Association (Regina)

Richard Kent, Federation of Saskatchewan Indian Nations and Prince Albert Grand Council (Prince Albert)

Jack Lichtenwald, Regina Fire Department. (Regina)

Graham Linton, Levitt-Safety (Regina)

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Appendix B: Sub-sector Working Groups

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Don Amos, North Battleford Fire Department (North Battleford)

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Rob Donley, Saskatchewan Professional Firefighters Association (Moose Jaw)

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